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ROYAL ONTARIO MUSEUM

THIRTY-EIGHTH ANNUAL REPORT
JULY 1987–JUNE 1988



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ROYAL ONTARIO MUSEUM

THIRTY-EIGHTH ANNUAL REPORT

JULY 1987–JUNE 1988

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Royal Ontario Museum
100 Queen's Park
Toronto, Ontario
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as of 30 June 1988

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as of 30 June 1988

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Finance
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Security
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Coordinator Collections Management
T. Yamamoto

Canadian Decorative Arts
D. B. Webster

Egyptian
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Ethnology
T. Nicks

European
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Far Eastern
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Textile
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Entomology
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Geology
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Ichthyology & Herpetology
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Invertebrate Palaeontology
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Invertebrate Zoology
K. A. Coates

Mammalogy
J. Eger

Mineralogy
F. J. Wicks

Ornithology
A. J. Baker

Vertebrate Palaeontology
G. Edmund
(Acting curator in charge)

Conservation
T. Yamamoto

Laboratory of Analytical Systematics
K. E. Chua

Library & Archives
J. Matthews

Preparators
V. E. Peverley

Registration
S. Tanner-Kaplash

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R. Howard

Development

Membership Services
E. Barrett

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L. D. Levine

Exhibit Design Services
L. Render

Exhibitions
M. Welch

HUMAN RESOURCES

Assistant Director
N. Hood

Personnel

PUBLIC PROGRAMS

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K. MacKeracher

Education Services
R. E. Miles

Members' Volunteer Committee
B. Chisholm

Outreach Services
D. A. Young

Planetarium
T. R. Clarke

Programs & Public Relations
E. Goldhar

Publication Services
H. C. Porter

ROM Shops
L. Stevenson

REPORT OF THE CHAIRMAN OF THE BOARD OF TRUSTEES OF THE ROYAL ONTARIO MUSEUM

To His Honour
The Lieutenant Governor in Council

I take great pleasure in reporting to you on my stewardship as chairman of the Board of Trustees of the Royal Ontario Museum for the year ending 30 June 1988. This year has been one of expanding the reach and activities of the ROM, as well as reorganizing and strengthening its management under the guidance of our director and chief executive officer, Dr. T. Cuyler Young, Jr.

The major external expansion consisted of the ROM's assuming control of the board of trustees of the George R. Gardiner Museum of Ceramic Art, Toronto, and its day-to-day management and financing. This management aspect was achieved by the appointment of Dr. Young as the director of the Gardiner Museum and by the gradual implementation of a report on the merger by a task force chaired by Dr. David Barr, associate director, curatorial. The people of Ontario are most fortunate that Mr. George Gardiner, in a magnificent act of philanthropy, has seen fit to give his entire European ceramic collection to the Gardiner Museum this year. This gift ensures that the collection will be forever enjoyed by the public.

An important internal improvement was made in the field of exhibits, both permanent galleries and special and temporary exhibitions. Under the direction of Dr. Louis D. Levine, associate director, exhibits, this area of activity, which is of course the major link with the people of Ontario and with the educational program of the Museum, has now been placed on a basis that permits us to plan our special and temporary exhibitions two and three years in advance. This allows us to present the very best exhibitions, both large and small, that are available on the continent. The installation of our permanent galleries has now been properly budgeted and is proceeding well, although we still require considerably more money to meet the ROM's new gallery standards.

A further area of expansion and innovation was the increased earning of nongovernmental revenues, through continued fundraising campaigns, new sponsorship programs, special promotions, and greatly increased shop revenue and food and rental earnings. The Museum has recognized clearly that governmental grants must be supplemented by private sector support, if the ROM is going to continue to meet its obligations to the people of Ontario. We are attacking this obligation on many fronts. One of the most interesting initiatives is the formation of associations with sports organizations for various joint promotions. It is our philosophy that to be a well-rounded healthy person, young or old, requires an amalgam of science, culture, and athletics. We are on a crusade for educated jocks, male and female.

The Board of Trustees has also approved the striking of a special medal of merit for those donors who have dedicated a gallery in the gallery campaign. These medals will be awarded next year to our five major supporters: the Canadian National Sportsmen's Shows, the Eaton Foundation, the R. Samuel McLaughlin Foundation, the Samuel Family, and the W. Garfield Weston Foundation and George Weston Limited.

The most significant improvement of the year, however,



Edwin A. Goodman, chairman of the Board of Trustees, and his wife Suzanne with Mila Mulroney before the Toronto Summit dinner held at the Museum. (Photo: bds studios, Gary Beechey)

was the strengthening of senior management, through restructuring, by Dr. Young. These steps will now allow the Board of Trustees to complete the approval of a strategic plan to be recommended by management.

The Board strongly supports the efforts that Dr. Young has made since his appointment to increase management communication with all members of the staff and to improve relations between the various groups within the Museum. Historically, there was strong institutional pride at the ROM, which deteriorated badly in the 1960s and 1970s. It is important to all who work at this institution to restore this institutional pride.

During the last five years increases in governmental grants and the earning of more nongovernmental funds have allowed the Museum to raise by sixty per cent the average salaries and wages of Museum staff. These are remarkable increases and considerably greater than those in the governmental operating grants, generous though they have been. The Board and management believe that these salary adjustments were deserved, but, as we said throughout our negotiations with the unions, they require decreases in staff. That process has just commenced, and, while it is regrettable, it is the price that has to be paid for the raising of wages and salaries to market levels.

I am pleased to tell Your Honour that the Board of Trustees is working unprecedented hours on committees, projects, and meetings. I know of no private sector boards of directors whose members have greater dedication or work harder than the Board of the Royal Ontario Museum. The government is fortunate in having this type of volunteer assistance.



November 1988 Edwin A. Goodman

REPORT OF THE DIRECTOR TO THE BOARD OF TRUSTEES

The year 1987/1988 has been a fast-paced and exciting one in the life of the Museum, balanced by an effort to step back from the daily press of events and to undertake some long-range strategic planning.

Steady and significant progress was made in gallery development. This year the Museum opened the Bat Cave and the Hardwood Forest galleries in the mammalogy wing. Both were well received by the public. In fact, the Bat Cave was from the first such an attraction that the ROM almost drowned in its success. Unanticipated crowds forced staff to cobble together a program of traffic control that limited and paced the passage of visitors through the gallery. While this unfortunately meant that some were turned away because of numbers, it also meant that those who did see the gallery got the full benefit of both its atmosphere and educational message. Modifications now underway in the gallery will, we hope, permit success for all who wish to have this unique museum experience.

The Hardwood Forest, illustrated on the cover, and related displays have also been very popular. Children especially enjoy the game of finding the several animals cunningly hidden on the forest floor and in the trees, and all visitors can have an authentic experience of the beauty and majesty of a northern Ontario hardwood forest. I was particularly pleased to see on a recent Saturday morning a large group of people sitting on stools in the gallery and sketching the several animals in the related displays. These new galleries will, I have no doubt, provide much inspiration to a coming generation of painters of nature as well as plain delight to those who just love to draw.

Under the new Gallery Development Plan, approved this year by the Board of Trustees and handsomely supported by continuing contributions of funds from both the public and the private sector, encouraging progress was made on the Gallery of Birds; the Egypt/Nubia, Ethnology, and McLaughlin Earth Sciences galleries; and the north wing of the Samuel European Galleries, which will be the next to open. It will provide the visitor with almost fourteen thousand more square feet of public galleries.

It is most gratifying that, through the award to the Museum of 5 million dollars under the Economic Regional Development Agency grant program, the Government of Canada made a significant contribution to the ROM's goal of providing the public with some of the finest museum galleries on this continent. And of course the entire museum community is enlivened and encouraged by gifts from the private sector, such as the million dollars given this year for the Gallery of Birds by the Canadian National Sportsmen's Shows. This kind of support, combined with the new fiscal and project management program for the Gallery Development Project, will ensure that galleries open on time and within budget.

Special exhibitions continue to provide the Museum with the opportunity of sharing with the public treasures from elsewhere, as well as items from the ROM collections. The year began with a doubleheader: *Patterns in Light: The John and Mary Yaremko Glass Collection* and *Ontario at Home: Two Hundred Years of Living.* Some time ago the Yaremkos, public-minded citizens that they are, generously donated their remarkable and lovingly assembled pressed and cut glass collection to the Museum. We were pleased to have the chance to show it to the public in a setting worthy of its quality and to document it in an excellent catalogue by Janet Holmes of the Canadian Decorative Arts Department. The public was delighted. *Ontario at Home,* which tells the story of the development of the home in this province since its first settlement, was organized by Outreach Services and is now travelling.

The next exhibition, *Treasures of the Holy Land: Ancient Art from the Israel Museum,* attracted, by the time it closed, some 230 000 visitors; it was a popular, artistic, and educational success, for which all involved can be proud. The exhibition was made possible by the unique generosity of the



Dr. T. Cuyler Young, Jr., director *(far right),* congratulating *(left to right)* Mr. Peter Buerschaper of Exhibit Design Services, Mrs. Alison Easson of the Greek and Roman Department, and Mrs. Mary Allodi of the Canadian Decorative Arts Department, the three staff members honoured at the Twenty-Five Year Service Dinner held 21 October 1987. (Photo: bds studios, Gary Beechey)

Israel Museum, by private sponsors, and by the enthusiasm of the Canadian Friends of the Israel Museum. Success was also assured, of course, by the dedicated professional work of many Museum staff and by a legion of ROM Volunteers. The exhibition won a design prize in a very stiff continental competition, which, in my judgement, it well deserved. The ROM has rarely mounted an exhibition that found a better harmony between the artifacts displayed, the story line, and the presentation. All staff who worked on the show are to be congratulated, as are those many volunteers.

Much of the enjoyment and educational benefits that the public experiences from the Special Exhibition Program is the result of the kind, courteous, and knowledgeable reception they receive from the hundreds of volunteers who help with this program. Without their help and dedication the Museum would be hard pressed indeed to mount the kinds of special exhibitions for which it is becoming so well known, and the ROM's public would be much the poorer. The people of Ontario owe these volunteers much.

The ROM also mounted this year the striking and successful temporary exhibition, *The Gould Collection of Netsuke: Miniature Sculpture from Japan.* This remarkable assemblage of three centuries of Japanese carving is the private collection of Irving Gould, whose public-spirited generosity to the Museum made the collection available to the public. The ROM is pleased and proud to be a venue for the presentation of significant private collections of art and will always welcome people like Irving Gould, who wish to cooperate with the Museum for the benefit of the many.

The netsuke exhibition was, like *Treasures of the Holy Land,* well conceived, well curated, and stunningly presented. The design of the exhibition was in perfect keeping with the art it contained; visitors took away with them a real sense of Japan and its cultural atmosphere. An excellent and informative catalogue of the exhibition was written by Hugh Wylie of the Far Eastern Department; its success is reflected in the fact that the first printing has sold out.

Perhaps the most exciting event of an eventful year — and maybe one of *the* events of the Museum's history — was the joining together this past year of the ROM and the Gardiner Museum. For a wide variety of positive reasons, such a merger or blending of the two institutions made much sense to all involved in the museum business on both sides of Queen's Park, and gradually over the year a melding of the two institutions was effected. This was a major effort at all levels of management, for, while such a coming together of two museums may not be unique in history, it certainly is unusual, and the task required considerable original thought. Sound progress was made, and fairly soon within the new Museum year the operations of the two institutions should be smoothly combined. I am sure that the outstanding collections of European ceramics that give the Gardiner Museum its justified renown and the complimentary holdings of the ROM in the European decorative arts will provide the solid basis for a joint presentation that will be far greater than the sum of its parts.

Four construction or reconstruction projects were either completed or begun this year. I am pleased to report that the refurbishment of the entrance Rotunda is ninety-nine per cent complete, and I trust all will agree that the public's introduction to the Museum has been greatly improved. My thanks to all Board and staff members who worked hard on this project. Significant but frugal improvements in the physical space occupied by Exhibit Design Services, in large part dictated by the rapid decrease in empty gallery space available to house that department's operations, were begun. The rot of rust caused by ground water attacking the steel columns that support the 1912 wing of the building was fortunately discovered early in the year, and essential remedial action was taken which, unfortunately, has not been inexpensive and which caused serious disruptions to the work done by staff in that area. All has now returned to normal. Finally, I cannot fail to mention the beginning of the construction on "The Eaton Court." The North East Atrium of the Museum is being expanded and physically altered in order to provide a much-needed multipurpose general public programming space, which will also permit after-hours access to the Members' Lounge. This significant improvement in the ROM's ability to interact with the public has been made possible by the outstanding generosity of the Eaton Foundation, and the space will be known in perpetuity as the John David and Signy Eaton Court.

Finally, a report on strategic and operational planning. In bits and pieces, unfortunately, management and staff were able to find just enough time after the demands of each day had been met to make a significant start with strategic planning for the next five years. After plans to plan, background research, and the preparation of preliminary position papers were complete, in January 1988 senior management began a concerted joint effort of strategic and operational planning for the future. The Committee for Restructuring was struck in the meantime, involving senior management and staff representatives of almost all the programs of the Museum, who together discussed ways in which the management organization of the Museum might be changed with profit. Written submissions on these issues were requested from all staff, and teams from the committee interviewed over ninety staff members chosen as a representative stratigraphic sample of staff opinion. By early spring, working documents on long-range planning were available, which were shared with the Board of Trustees for discussion only, and, in part, with the entire staff of the Museum. Uproar followed, as one might expect. I held several meetings with different groups of staff and received some thirty-three written submissions on the future. All members of senior management had numerous formal and informal discussions with concerned and interested staff. Consultation has been as broad and thorough as circumstances permit.

No institution likes change. Indeed, few individuals welcome it. Yet change is inevitable. Studies by earth scientists here at the Museum and elsewhere reveal that even geological history which is supposedly written in stone is in fact the story of process and change in the physical world through time. The research of life scientists demonstrates that the record of living nature is one of mutation and adaptation to a changing environment. And archaeologists and art historians make their living by describing and explaining historical change in human cultures.

Frail as those of us who work here may be, it is one of our duties to try and manage change and not let it happen willy-nilly. That is what strategic planning is about. And that is, ultimately, on a larger plane, what the Museum is about. Society will experience in the next fifty years wrenching technological and social changes as it confronts a challenge from the environment such as it has not experienced since the last retreat of the glaciers at the end of the Pleistocene epoch. The Museum must so position itself that it can continue, in that changing and challenged world, to provide some of the data and some of the education that will help humanity cope with a frightening future.



T. Cuyler Young, Jr.
Director

October 1988

ADMINISTRATION AND FINANCE DIVISION

Michael Shoreman, Assistant Director

During 1987/1988 the Administration and Finance Division placed emphasis on the improvement of services in support of Museum programs. The following examples highlight some of the activities undertaken; more detailed descriptions can be found in the departmental reports.

In the Security Department, new educational programs were implemented for Security staff and for other Museum employees. A review of cost effectiveness and manpower utilization resulted in a system that permits increased flexibility in work assignments and an improved rate of response to emergencies.

The Physical Plant Department was involved in several major capital projects. Included in these projects were the complete renovation and restoration of the main floor Rotunda to create a magnificent lobby entrance, renovations to the Museum shops and the ROM Reproductions Shop, and the restoration of corroded structural steel columns in the West Wing. Through a generous donation from the Eaton Foundation, construction began on an enclosed public programming and functions space in the North East Atrium. The work is scheduled for completion in spring 1989. This area will be known as the John David and Signy Eaton Court.

In the Finance Department, the Computer Services Unit was reorganized to better provide services to the Museum. Research into the evolving areas of office automation, computer-generated graphics, and electronic typesetting continued. The department developed a centralized purchasing policy for the Museum, and its implementation commenced. Steps were taken towards full computerization of departmental activities, and further improvements were made in the systems of financial reporting and control.

FINANCE DEPARTMENT

Bill Graesser, Head

The Finance Department consists of three separate units, Computer Systems, Purchasing, and Finance.

COMPUTER SYSTEMS The computer systems unit was reorganized during the year into two support areas: centralized administrative computing and distributed office automation. The centralized adminstration section focused on the requirements analysis, system design, and program coding for the new Membership and Development system. This on-line database system will integrate the Membership and Development functions, and provide for future growth in those areas. The project will be implemented in two phases: phase one, the Development segment, in September 1988 and phase two, the Membership segment, in early 1989.

On the office automation front, two multiuser Unix systems were implemented in the Department of Mineralogy and Exhibit Design Services. These systems are cost effective and provide a high level of connectivity among users. Research will continue to ensure that the Museum develops an integrated automation strategy consistent with its strategic plan.

PURCHASING A detailed centralized purchasing policy was developed for implementation in early 1988/1989. By concentrating purchasing activities, the new policy will achieve improved control, savings through economies of scale and competitive bidding, and consistent treatment of suppliers. Staff in other departments who previously performed purchasing functions will be relieved from these activities, which are incidental to their primary responsibilities.

Plans are underway to expand the unit to include all aspects of procurement and office services, such as purchasing, stores, inventory control, shipping and receiving, mailroom, telephone systems, photocopiers, and the chemical waste disposal policy. In order to properly reflect its responsibilities, the unit will be renamed the Purchasing and Administrative Services Unit.

FINANCE This year's efforts concentrated on completing the computerization of the Finance Unit, assuming the financial responsibilities of the George R. Gardiner Museum of Ceramic Art, and improving the budget process. Miss Marjorie Dutton, accounting projects clerk, retired after thirteen years service within the Department and is currently enjoying life to the fullest in Weymouth, Nova Scotia.

Over the next year the internal reporting process will be reviewed in order to ensure that ROM departments receive concise and meaningful financial information. An on-line interface will be developed between the Museum and its payroll service bureau to eliminate redundant and manually intensive procedures and to achieve cost savings.

PHYSICAL PLANT DEPARTMENT

In addition to maintaining the building, building systems, and grounds and providing administrative and support services, the department directed several major, ongoing projects. Among these was the completion of the renovation of the first-floor Rotunda. The central desk was removed, creating a magnificent open lobby area. Two new marble desks were constructed at the northwest and southwest corners for Visitor Services and Membership operations. The administrative offices of the main ROM Shop were expanded and updated as well, and a new see-through entrance was installed.

The department also undertook considerable restoration work on the corroded structural steel columns of the West Wing. The problem was due to water seepage that was caused by revisions to the landscaped area at the west wall of the wing. This work was still in progress at the end of the year.

Through a generous donation from the Eaton family, work at the North East Atrium patio began on the construction of an enclosed public programming space. This area, to be known as the John David and Signy Eaton Court, is expected to be completed in spring 1989.

In order to prevent the erosion of the lawns on the southeast frontage of the building, new stone curbwork was installed. Revisions to the internal doors of the loading dock were completed in the spring in order to resolve the problem of diesel fume seepage into the building at level 1B.

Within its regular operations, the department continued to upgrade its operations, providing on-going air quality testing, improvements to the telephone system, and the addition of facsimile facilities (FAX).

In June, with less than two week's notice, the Housekeeping section mobilized with characteristic productivity and

efficiency to provide all coordinative and physical work required for housekeeping needs for the ROM's successful hosting of VIP Toronto Summit visitors. This function was the most extensive of those held at the Museum in a busy year of facilitating the requirements of user groups.

SECURITY DEPARTMENT
Janet Banks, Head

Working with Museum staff, the department made exceptional progress in investigation direction and control, visitor and employee protection, terrorism-risk forecasting for foreign operations, crime-risk forecasting for on-site activities, information protection, policy making, and crisis management. Ethical standards were established and monitored, and physical security standards were developed. New education programs were implemented for department staff and other ROM employees.

A review of cost-effectiveness and manpower utilization in the ROM security program identified an immediate need for increased flexibility. The security officer assignment reflected a shift to positions that allowed an improved response rate to emergencies.

Risk analysis was a major task attached to several important Museum undertakings. Carefully obtained information about the activities of both professional criminal and politically motivated groups proved essential to responsible decisions regarding the transportation, security, and display of exhibitions and the scheduling of politically sensitive functions.

In the fourth year of the five-year upgrading plan for the ROM physical security systems, changes were made to reduce the Museum's vulnerability to theft and vandalism. The ROM acquired the first infrared closed-circuit television camera units available in Canada in order to monitor areas with very low light levels, such as the Bat Cave, as if they were clearly lit. The Security Control Room had its motion detectors and alarms upgraded and improved lighting and new closed-circuit television equipment installed.

The department continued to be actively involved in the Joint Health and Safety Committee and other related issues in the Museum. Mrs. Patricia Heimbecker, word processing clerk in the Canadian Decorative Arts Department, and Mr. Philip Longton, security supervisor, were certified as cardiopulmonary resuscitation instructors. They conduct training sessions for ROM staff twice a month. Health and Safety Week served to improve safety awareness throughout the Museum, and this year even more people participated. This year the department responded to approximately seven hundred first-aid calls. The trained staff in the department and throughout the Museum were instrumental in ensuring that none of these emergencies escalated into tragedies.

For the March school break program the security officers once again wore costumes. Inspector Gadget and the life-size board game in the North East Atrium were a great success with the children.

On a more serious note, in May there was a fire in one of the curatorial departments' office areas. The evacuation of the building was very quick and efficient, and staff were extremely patient while waiting to be readmitted. The team of staff members who assisted with the removal of sensitive material from the affected areas immediately after the extinguishment of the fire worked efficiently. The security personnel on-site performed the many difficult functions required of them in a fire situation and helped with the clean-up and recovery activities.

Over the year the department processed 10 000 visitors and 4000 contractors through the staff entrance, responded to 4000 alarm situations, catalogued 5000 lost items, and retrieved 1200 items from the lost and found for visitors. The Security Administration office responded to 460 requests for keys and processed 2400 photograph identification badge requests. Once a month, supplies were replaced in the 75 first-aid kits throughout the Museum and the 450 fire extinguishers were checked. The observations of security officers as they monitored the galleries each day and patrolled the Museum during the evenings generated 1800 work requests for gallery and general maintenance work.



The weather did not cooperate during the annual fire drill.

CURATORIAL AND CURATORIAL SERVICE DIVISION

David Barr, Associate Director

Staff of the curatorial and curatorial service departments were active in many parts of the world this year. Expeditions, research, lectures, and study trips were carried out in Europe, the Middle East, Africa, the Far East, and Central and South America, as well as in Ontario and many other parts of Canada. At the Museum, artifacts and specimens of diverse origins were packed, shipped, conserved, documented, studied, mounted, photographed, and exhibited by the wide range of skilled professionals on staff.

Some of these international expeditions were supported by funds provided under the Science Cooperative Field Studies program, in its fourth year of operation at the Museum. This program underwrites part of the cost of multidisciplinary scientific field expeditions mounted by two or more curatorial departments. It is intended to stimulate the sharing of facilities, expertise, and study techniques by scientists in different disciplines, for instance, invertebrate zoologists and ichthyologists studying freshwater faunas. Specimens and field observations collected in such multidisciplinary settings tend to be better documented and more useful for both exhibit and future scientific work.

This year marked the beginning of a major new initiative for the division, a cooperative program with Membership Services to develop a series of ROM special interest groups. Each group is a kind of specialty club for ROM members, who, for an annual fee, can become friends of a curatorial or curatorial service department. A special interest group coordinator employed by the Development Office implements overall program goals and assists curatorial departments in planning and providing unique experiences and exciting information for their members. Benefits include visits to the departmental collections, lectures by staff and visiting specialists, and a special interest group newsletter from each curator. The ROM special interest groups currently available to members focus on Islamic art, the library and archives, shells, 20th-century design, and anthropology.

Considerable attention was given this year to detailed planning for the integration of the curatorial programs of the George R. Gardiner Museum of Ceramic Art, Toronto, and those at the ROM. The Far Eastern Department became involved in developing the first joint exhibition between the ROM and the Gardiner, *Horses of Heaven*. There are high expectations for the combination of the European ceramics collections of the two institutions, to form one of the finest representations of ceramic art in the world. And together with Victoria University, Toronto, both museums are committed to the utilization of that bountiful resource as the basis for outstanding future programs in exhibition, research, and teaching.

Finally, all staff this year shared in the opportunity to take a broad overview of the curatorial and curatorial service division as a part of the whole museum and as a centre of vital services to society. In initiating an investigation of ideas and dialogue intended to lead to a strategic plan for the ROM, the division succeeded in rising above day-to-day tasks and immediate deadlines to reconsider its ultimate responsibilities and the services it performs. The mandate to care for and preserve collections of cultural and national heritage must be balanced by the responsibility to make those artifacts and specimens accessible and useful to the public. The products of research and teaching must be relevant not only to the world of scholarship but also to those who enter the Museum's doors to view exhibits and participate in public programs. Discussion of how these responsibilities can be best fulfilled proved an agonizing but stimulating exercise, and when the final recommendations are approved and implemented, they will pave the way for a bright future for continuing ROM curatorial contributions to the people of Ontario, of Canada, and of the world.

CANADIAN DECORATIVE ARTS DEPARTMENT

Donald B. Webster, Curator in Charge

ACQUISITIONS A total of 134 gifts were received from 32 donors, and 24 purchases were made. Among the most notable pieces was a portrait of Mrs. Daniel Sutherland, signed and dated 1792 by François Beaucourt, Canada's first native-born portraitist. The painting was purchased through a gift from Mr. William White of Ancaster and the Costello Trust. The superb Halifax mahogany and maple small bookcase dating to ca. 1810 to 1820 that Dr. and Mrs. William McGill of Brantford donated was one of the prime gifts received.

EXHIBITIONS The very successful exhibition *Discovery of the Titanic*, which was at the Sigmund Samuel Building until 7 September 1987, was followed by *Posted to Canada: The Watercolours of George Russell Dartnell 1835–1844*, which ran from 26 September 1987 to 28 February 1988. *Patterns in Light: The John and Mary Yaremko Glass Collection* was on display in the main ROM building from 31 October 1987 to 3 January 1988. *Quebec Furniture and Paintings* opened in April in the Sigmund Samuel Building South Gallery for an indefinite run; the exhibition, however, will be subject to periodic partial changes.

LOANS Material from the collections went to the Art Gallery of Hamilton; the Whyte Museum of the Canadian Rockies, Banff; Memorial University of Newfoundland, St. John's; the Thunder Bay Historical Society Museum; the Winnipeg Art Gallery; the Ontario Crafts Council, Toronto; the Market Gallery of the City of Toronto Archives; and the McMichael Canadian Collection, Kleinburg.

RESEARCH Long-term projects were the focus of research this year. Miss Janet Holmes, curatorial fellow, was on a year's leave at the Henry Francis Du Pont Winterthur Museum, University of Delaware. Mrs. Mary Allodi, curator, pursued three projects: the Canadian portrait index and studies on engraver James Smillie and artist William Berczy. Mr. Webster worked simultaneously on a catalogue of French-Canadian furniture and woodenwork in the ROM and on an analysis of late-19th-century military small-arms.

TEACHING AND LECTURING Mr. Webster taught the course "North American Decorative Arts" for the University of Toronto, with input from Mrs. Honor de Pencier, research associate, and Mr. Brian Musselwhite, curatorial assistant, of the European Department. Mr. Webster also spoke to the Guelph Historical Society, the Prince Edward County Historical Society, and the Architectural Conservancy of Ontario, Toronto.

He was resource person for the Members' Volunteer Committee tour of Nova Scotia.

PUBLIC SERVICE The department receives from three to four thousand queries and requests each year from individuals, through letters, telephone calls, and visits. This year Mrs. Karen Smith, departmental assistant, attended to photograph and photocopy requests; curatorial staff answered questions in their areas of expertise; and Mrs. Josine Jeffrey, part-time library staff member, handled other inquiries. Outside the Museum, Mrs. Allodi worked with Miss Rosemary Tovell of the National Gallery of Canada, Ottawa, on a William Berczy retrospective exhibition. Mr. Webster was involved with the Queen's Own Rifles in planning the regiment's museum at Casa Loma, Toronto, and was on the board of the Enoch Turner Schoolhouse, Toronto.

HONOURS Mrs. Allodi was promoted to full curator, recognition long due, and was also elected to membership in the Print Council of America.

EGYPTIAN DEPARTMENT

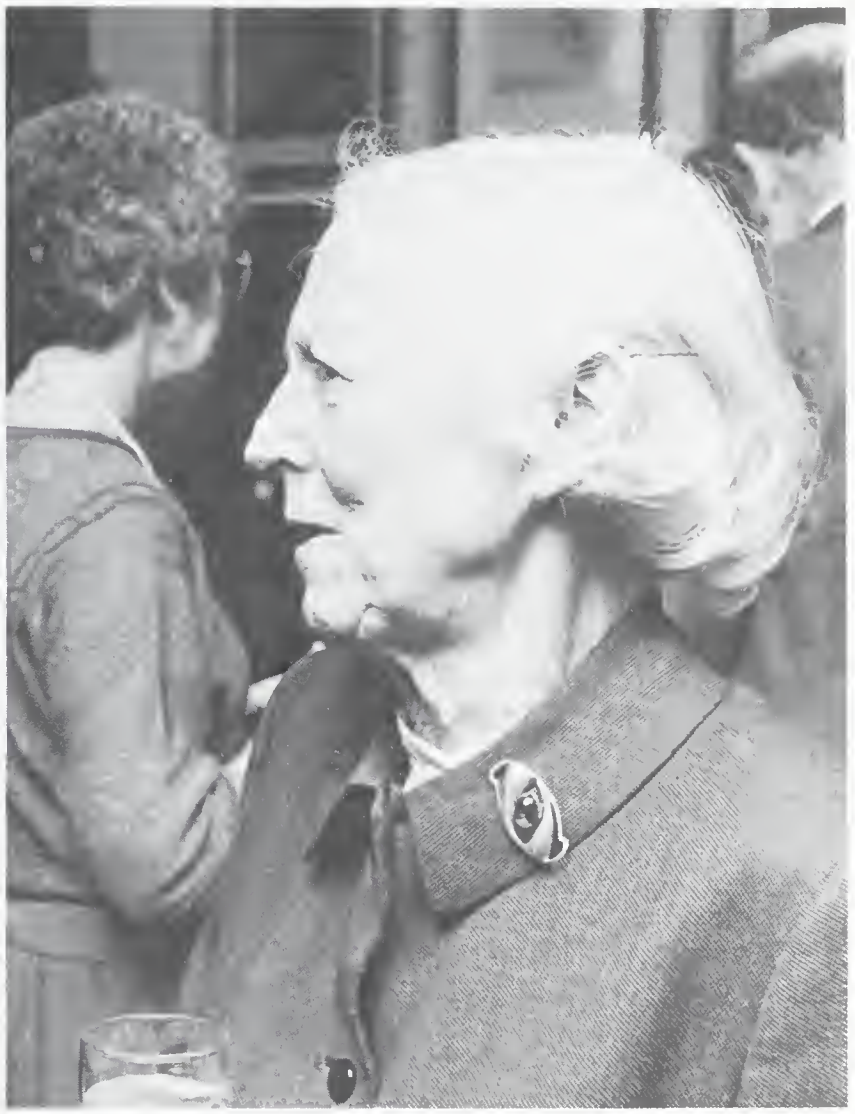
N. B. Millet, Curator in Charge

GALLERY DEVELOPMENT With the new Egyptian and Nubian galleries scheduled to open in April 1990 and with construction due to begin January next, work on the gallery labels began, and liaison was maintained with the Conservation Department to ensure that artifacts are in proper condition to be displayed.

RESEARCH AND FIELD WORK With the aid of grants from the Social Sciences and Humanities Research Council of Canada, the Dakhleh Oasis Project (a joint venture with the Society for the Study of Egyptian Antiquities) under Mr. A. J. Mills, research associate, and the ROM Nubian Expedition (formerly the Dongola Reach Project) under Dr. Krzysztof A. Grzymski, assistant curator, carried out further seasons of excavation in the Western Desert of Egypt and in the Sudan respectively. A highlight of Mr. Mills's season was the discovery, at the ancient town site of Ismant, of a pair of wooden codices of the late 3rd century A.D., one of them an account book and the other a transcript of some of the writings of the Greek orator and teacher Isocrates, a contemporary of Aristotle. Dr. Millet received permission for a first season of work at Lahun, the site of the pyramid and residence town of King Senwosret II of the Twelfth Dynasty; the expedition began survey and the making of a base-map.

TEACHING AND LECTURING Dr. Millet and Dr. Grzymski taught graduate and undergraduate courses in Egyptian archaeology, art, and architecture at the University of Toronto, and advised several graduate students. They also gave several scholarly and popular lectures in Canada and abroad.

ACQUISITIONS AND LOANS The department received a generous allocation of artifacts from the Sudanese government, as part of the finds at sites in the Dongola Reach. Some of these objects are destined for the new Nubian Gallery. An extremely fine bronze figure of the goddess Isis nursing Horus was presented to the Museum by Mr. Hugh Ward Higson on behalf of the late Mrs. Heather R. H. Higson, and a royal scarab of the Third Intermediate Period (ca. 900 B.C.) was donated by Mr. Gerald F. Levenston. The Future Fund Today — ROM Endowment provided the means to purchase a New Kingdom wooden comb for the planned display on



Miss Winifred Needler, curator emeritus.

personal adornment. A large number of Egyptological books came to the Egyptian library from the estate of the late Miss Winifred Needler.

Loans were sent to the McKissick Museum of the University of South Carolina at Columbia, the Birmingham Museum of Art in Alabama, and various other venues. Preparations started for an upcoming loan to the Brooklyn Museum.

PUBLIC SERVICE Dr. Millet continued to serve on the governing bodies of the Canadian Mediterranean Institute, the American Research Center in Egypt, the Society for the Study of Egyptian Antiquities, and the Canadian Institute in Egypt. He is president of the last two. He also served on the board of the Museum of the History of Medicine of the Academy of Medicine of Toronto and on the Visitors' Committee of the Department of Egyptian and Ancient Near Eastern Art of the Museum of Fine Arts, Boston.

STAFF Members of the department, and her many friends in the Museum, were saddened by the death, after a short illness, of Miss Winifred Needler, curator emeritus. Miss Needler served the Museum for many years until her retirement in 1970 and was the author of many respected papers on the department's collections and on Egyptian art in general. Her *magnum opus* on the Predynastic collections of the Brooklyn Museum is regarded as a landmark in the field.

The department received a grant from the Vari Foundation, which allowed Dr. Bogdan Zurawski of the Polish Academy of Sciences, Warsaw, to be a visiting curator for a period of two months. Through the generous help of Mr. Geoffrey E. Freeman, Miss Averil White worked as a temporary assistant to Mrs. Annette Gromow, departmental assistant. Miss Leanne Davies, summer assistant, helped with the artifact database for gallery planning, and volunteers Mrs. Faith Stanley and Mr. Angus Mueller worked with the collections.

DEPARTMENT OF ETHNOLOGY

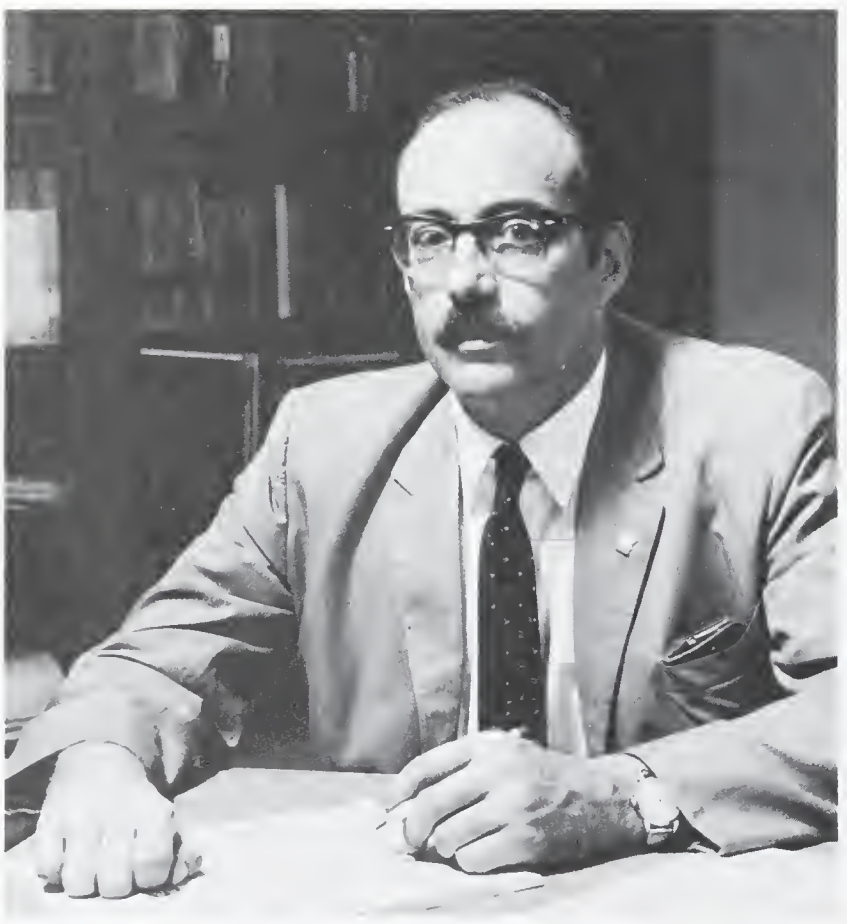
Trudy Nicks, Associate Curator in Charge

STAFF Dr. Edward S. Rogers, curator of ethnology, who joined the ROM in 1958, died of cancer on 8 March 1988. The Band Council at Weagamow (Round) Lake, where Dr. Rogers carried out many years of research, gave special permission for interment of his ashes in the community cemetery. Valerie Grant, technician and research assistant in the department for twelve years, resigned to attend university, where she will further her studies in anthropology. Dr. Nicks was appointed associate professor (part-time) in anthropology at McMaster University, Hamilton.

ACQUISITIONS The department acquired 613 artifacts by purchase and donation to augment the African, Melanesian, and North, South, and Central American collections. A grant from the Government of Canada under the Canadian Cultural Property Export and Import Act assisted in the repatriation of a large collection of northeastern Woodlands artifacts from England.

GALLERY DEVELOPMENT, EXHIBITIONS, AND LOANS The department received approval for a program of regularly changing exhibitions, which will permit in-depth presentations of the Museum's worldwide ethnographic collections. Work proceeded on exhibitions of Plains Indian material and on an introduction to the collections and anthropological research. Preparations continued for a major exhibition in 1989 of the African collections. Members of the department prepared and staffed an exhibition on the theme of Plains Indian picture writing for the March school break.

Artifacts and art works from the collections were lent to a number of exhibitions: *The Spirit Sings: Artistic Traditions of Canada's First Peoples* at the Glenbow Museum, Calgary; *El Ojo Del Totem* for the Spanish National Commission for the Commemoration of the Quincentennial of the Discovery of America; *Ivalu* at the McCord Museum, Montreal; *Contemporary Inuit Drawings* at the MacDonald Stewart Art Centre, Guelph; *North American Indian Quillwork* at the Huronia Museum, Midland; *History of Fishing in the Algoma Region* at the Sault Ste. Marie Historical Society; *Prominent Citizens of Cobourg* at the Art Gallery of Northumberland, Cobourg; and *Baskets, I Got Baskets* at the Museum of Indian Archaeology (London). A collection of Inuit artifacts was lent to the Department of Anthropology at McMaster University, Hamilton.



Dr. Edward S. Rogers, curator.

FIELD WORK AND RESEARCH Staff projects this year included research on the early occupation of the Hudson Bay Lowlands of northern Ontario, recording of Ontario Ojibwa oral traditions, documentation of Kwakiutl potlach and Tsimshian totem pole raising ceremonies, and archival research related to the history of wampum, the history and genealogy of Ojibwa Indians in northern Ontario, and the African and the Plains Indian collections.

TEACHING AND LECTURING Department members presented over thirty lectures at the ROM to special interest groups and at conferences and colloquia in Canada and the United States. University teaching included one graduate course on the ethnohistory of Canadian Indians at McMaster University and service on eight graduate committees at McMaster University, University of Toronto, Ruprecht-Karl-Universität Heidelberg, Johann Wolfgang Goethe-Universität Frankfurt, Philipps-Universität Marburg, and the University of New Mexico, Albuquerque. Dr. Jeanne E. Cannizzo, associate curator, gave the 1987 Annual Lecture in Ethnology and Ethnohistory, "White Missionaries: Black Converts."

PUBLIC SERVICE A reception for recent donors to the collections was held in the department on 18 February. An anthropology special interest group for ROM members was initiated. Staff members provided advisory services to government departments and the Canadian Cultural Property Export Review Board, to school and cultural programs, to scholarly researchers, and to members of the general public. A total of 99 requests for 436 photographs of the collections came from England, France, Spain, Finland, Hawaii, New Zealand, the United States, and Canada. Most photographs were for use in publications and films. Throughout the year 178 people visited the department for research purposes or to have artifacts identified. Further ethnographic information was provided in response to letters and telephone inquiries.

EUROPEAN DEPARTMENT

K. Corey Keeble, Associate Curator in Charge

GALLERY DEVELOPMENT AND EXHIBITIONS Work on the new European Galleries remained the focus and priority of the department this year and involved a heavy commitment of time and effort on behalf of all the staff. In this connection, Mr. Keeble continued his research on the collections of arms and armour and sculpture. He investigated the history of the tournament in its late forms and its relationships to the early history of ballet and opera. Dr. Peter Kaellgren, assistant curator, worked on various aspects of galleries, particularly the ceramics and glass components. Dr. Howard Collinson, assistant curator, was also active in gallery work, but in addition was curator for the exhibition *Power of the Press: Printmaking in Northern Europe 1490–1700,* which opened in November 1987. Mrs. Cynthia Martin, departmental assistant, dealt with the processing of the increasing amount of data relating to gallery work and acquisitions. The two tech-



Miniature silver tea and coffee set on tray table, English, from London, by David Clayton, ca. 1725. Anonymous gift through the Canadian Cultural Property Review Board.

nicians, Ms. Wendy Kritzer and Mrs. Torrie Lowther-Munroe, attended to essential gallery work and provided assistance to the curatorial staff in connection with collection handling and exhibitions. In addition to maintaining ongoing functions of the department, the curators and the technicians were involved in the coordinating functions for the galleries with the designers, interpretive planners, and service departments.

ACQUISITIONS AND DONATIONS Additions to the collections through the Canadian Cultural Property Export and Import Act included a large collection of miniature English silver of ca. 1680 to 1750, given anonymously, and fine Russian and other Continental metalwork, the gift of Mr. David Campbell. Numerous small donations were received as well.

TEACHING AND LECTURING Mr. Keeble's lectures included a number on the subject of the *Titanic*, which were given through Outreach Services. Dr. Kaellgren continued his teaching activities with the University of Toronto's Department of Fine Art, and in the spring again taught his third-year course "Studies in English and European Ceramics." Dr. Collinson taught two courses for the Department of Fine Art, "Rembrandt," and "German Art 1350–1550." His public lecturing included involvement with the research symposium at the Art Gallery of Ontario, Toronto, that was part of the exhibition *The Glory of the Page*. Mr. Brian Musselwhite, curatorial assistant, taught the course "Ceramics and Glass" for the Ontario College of Art, Toronto, and continued his course "Antiques" for the Toronto Board of Education.

RESEARCH In September Dr. Kaellgren combined research with his role as resource person on the Members' Volunteer Committee trip to Berlin and Dresden. Dr. Collinson continued research into 18th-century printmaking in Augsburg and into the history of plastics.

PUBLIC SERVICE All the curators maintained their involvement in the ROM's identification service. The department was also among those to form special interest groups for members under the auspices of the Development and Membership Division. The department's group chose modern decorative arts for its focus.

FAR EASTERN DEPARTMENT

Doris Dohrenwend, Associate Curator in Charge

STAFF In October 1987 Dr. James Hsü relinquished his position as department head in order to devote more time to research, suggesting Dr. Dohrenwend as his replacement.

ACQUISITIONS AND LOANS During the year, 54 gifts were gratefully received from 15 donors. Notable among the gifts-in-kind were a Ming Chinese armchair and table, a Chinese "jade book," an Indian red sandstone goddess, and a Khmer bronze. During the year 103 works were lent or remained on loan to institutions in Canada, the United States, and Korea for special exhibitions.

EXHIBITIONS AND GALLERIES Dr. Ka Bo Tsang, curatorial assistant, curated the exhibition *The Art of Xu Beihong;* Xu was a key figure in modern Chinese painting history. *The Gould Collection of Netsuke: Miniature Sculptures from Japan* was curated by Mr. Hugh Wylie, curatorial assistant, who wrote the accompanying catalogue. Mr. Wonyoung Koh, research associate for Korean art, worked with Outreach Services to create *Korea: Land of the Morning Calm*, a travelling exhibition of Korean cultural material, most of which was generously donated by the Korean government. Work on the Early China galleries was suspended in September 1987, but will resume in April 1989. Meanwhile, Dr. Dohrenwend began work on Chinese stone sculpture for the John David and Signy Eaton Court, the extended North East Atrium.

FIELD WORK In September Dr. Dohrenwend travelled to Japan and Korea in connection with the Korean loan. Mrs. Barbara Stephen, curator, served as resource person for the spring Members' Volunteer Committee tour to China, with



Mr. Wonyoung Koh, research associate, and his wife and daughter *(left),* with Dr. Doris Dohrenwend, curator in charge, and Mr. Hugh Wylie, curatorial assistant, at the gala send-off for the travelling exhibition *Korea: Land of the Morning Calm.*

the assistance of Mrs. Sara Irwin, technician. Mrs. Stephen stopped at the National Museum of Korea in Seoul to oversee the packing of the last of the ROM loan of Chinese material. Mrs. Elizabeth Hayes, research associate for South Asia, spent six weeks in India, and other staff members visited museums, collections, and dealers in England and the United States.

RESEARCH Mrs. Stephen researched earliest Chinese society and Shang tomb "M20." Dr. Hsü continued his work on Shang oracle bones and resumed his research on coins. Dr. Dohrenwend studied Chinese stone sculpture, and Mrs. Patty Proctor, curatorial fellow, Chinese tomb figures. Dr. Tsang researched Chinese painting, prints, and rubbings, and Mr. Wylie worked on *nanga* painting theory.

TEACHING AND LECTURING Staff continued teaching the University of Toronto undergraduate course "Introduction to East Asian Art," organized by Mrs. Stephen, and Dr. Hsü resumed his course "The Written Word in Ancient China." Lectures and talks were given by staff for various programs at the ROM and to five outside audiences. Mr. Wylie and Mr. Jack Howard, librarian, gave the Bishop White Committee's spring lectures on Japan.

PUBLIC AND MUSEUM SERVICE This year over 550 objects were brought to the Wednesday afternoon identification service. Ms. Jeannie Parker, technician, answered numerous requests for slides and photographs. The department hosted over two hundred visitors from six countries. Dr. Dohrenwend chaired the Art and Archaeology Curatorial Council until December. Mrs. Stephen served on the Art and Archaeology Editorial Board and on the Curatorial Promotions Committee.

AWARDS AND HONOURS Dr. Hsü was invited to participate in an Ontario government delegation visit to Jiangsu Province in China to discuss possible cultural exchanges with Ontario.

THE H. H. MU LIBRARY Generous support for the H. H. Mu Library was received from the Government of Korea; the Japan Foundation; the Metropolitan Center for Far Eastern Art Studies, Kyoto; and the Bishop White Committee; among other individuals and institutions. The 273 books and the monies given to the library contributed greatly to the maintenance of its major research collection and to its stature as one of the leading oriental libraries in North America.

GREEK AND ROMAN DEPARTMENT
John Hayes, Curator in Charge

ACQUISITIONS AND COLLECTIONS MANAGEMENT A generous gift of 713 coins came from Mr. R. Cryderman; 166 of these went to other departments in the ROM. Mr. J. Gainor, Mr. W. Hughey, Mrs. A. Lang, and Dr. J. S. Wilkinson also donated coins. Miss A. Dassios gave 21 sherds. In exchange with the Oklahoma Museum of Natural History, Norman, 5 sherds from the Agora in Athens were received. A clay bust of a boy was purchased through the generosity of Mr. R. E. Hindley.

Reorganization of the storage rooms was completed, and computer facilities were expanded for collections management and research.

GALLERY DEVELOPMENT AND EXHIBITIONS An enlarged Byzantine Gallery and other future galleries were planned. *Byzantine Decorative Arts,* exhibited in the display Growing Collections, included forty-eight pieces acquired in 1986. Recent gifts were shown at a reception for new ROM members.

LOANS Four Cycladic artifacts were lent to the Virginia Museum of Fine Arts, Richmond, for the travelling exhibition *Early Cycladic Art in North American Collections.* In Toronto loans of graphics and models were made to the Consulate-General of Greece, the Ontario Science Centre, and the Greek Community of Metropolitan Toronto Inc.

Field Work Dr. Hayes worked on excavations in Greece, Italy, and Sicily; visited sites in Yugoslavia; and studied pottery finds from Libya. He attended conferences in Rome and in London and gave a paper at the Congrès National des Sociétés Savantes in Strasbourg. Mr. Wayne Rix, technician, took a course held by the Ontario Museum Association.

Research Dr. Hayes submitted catalogues of the ROM's Greek/Greek-style painted pottery and metal axes for publication, and completed his part of a forthcoming report on the excavations at Kommos, Crete. Mrs. Alison Easson, associate curator, finished the computerization of 24 484 coins struck at Alexandria, Egypt, and proceeded with her catalogue of the Roman Republican coins. Her catalogue of the ROM's Central and East Gaulish mould-decorated samian ware was published. Mr. Paul Denis, curatorial assistant, prepared a short article for *Rotunda* and worked on the Byzantine collection. Mrs. Neda Leipen, research associate, continued her study of the terracotta figurines.

Teaching and Lecturing Mrs. Easson spoke on ancient coinage to guests of the chairman of the Board of Trustees and to a group at the University of Waterloo. She also read a paper on samian ware at the Ninth ROM Research Colloquium. Mr. Denis and Mrs. Easson gave the Continuing Education series "Looking at Greek, Roman, and Etruscan Art." Mr. Denis spoke on Byzantine jewellery to FOROM and Dr. Hayes on archaeology to students from Leaside High School, East York.

Public Service Tours of the Greek galleries were given to the consular corps of Toronto, the Detroit Classical Association, and students from Wilfrid Laurier University, Waterloo, and Trent University, Peterborough. As part of "Greek Month," supported by the General Secretariate for Greeks Abroad in Athens, two special lectures were hosted. With the Consulate-General of Greece in Toronto and the Ontario Classical Association, two essay competitions on the ancient Greek games were held for secondary and postsecondary Ontario students. The winners were Mr. D. Wright of Simcoe and Mr. G. Mavragannis of Scarborough. Mr. Wilfred Boroskie, technician, designed the poster/flyer.

Staff members served on a number of ROM committees, including the Art and Archaeology Editorial Board, and took part in the March school break. Mrs. Easson was the ROM representative for the Toronto Society of the Archaeological Institute of America. The department helped the Members' Volunteer Committee develop new items for the ROM Reproductions Shop. Over 350 artifacts were identified for members of the public.

Awards and Honours Dr. Hayes was a guest at the opening of the new museum at Siracusa, Sicily. Mrs. Leipen was appointed visiting senior associate member of the American School of Classical Studies, Athens. Mrs. Easson was made an honorary life member of the ROM in recognition of her twenty-five years of service with the Museum.

DEPARTMENT OF NEW WORLD ARCHAEOLOGY

David M. Pendergast, Curator in Charge

Research and Field Work In October 1987 and June 1988 Dr. Mima Kapches, assistant curator, carried out excavations in private North York backyards, which revealed a Late Archaic campsite (ca. 1300 B.C.), an Early Woodland component (ca. 1000 B.C.), and an undisturbed Pickering Iroquoian campsite (ca. A.D. 1000). Dr. Elizabeth Graham, research associate, completed excavations at Negroman-Tipu, Belize, in August 1987, and returned to Toronto in September to resume analysis and reporting of the work. Dr. Peter L. Storck, curator, coordinated Udora Site material from south-central Ontario for analysis, and undertook a nine-day collecting trip to three Wisconsin chert sources.

Exhibitions and Gallery Development By its close on 30 August, the exhibition *Eye of the Beholder: Objects for Personal Adornment,* organized by Miss Peta Daniels, technician, had reached a record-breaking attendance total of 234 137. In following months Miss Daniels gave lectures on related subjects at The Margaret Woodbury Strong Museum in Rochester and at the Sutton Place Hotel in Toronto. She also supplied information on adornment for CTV and CBC television programs.

Acquisitions and Collections Management Donations of Ontario archaeological material were received from Mr. Paul Amos, Mrs. Margaret Chase Gibson, Mr. Stewart Shannon, Mr. John W. Stephens, and Mr. Joe Sullivan. Major reorganization of the Casas Grandes and Altun Ha collections was undertaken by Ms. Anne MacLaughlin, technician, and Miss Daniels, with the help of Mr. Arun Blake, laboratory assistant. The Altun Ha work was occasioned by the return of approximately six hundred artifacts by the Glenbow Museum, Calgary.

Loans Material was lent to the Glenbow Museum for the exhibition *The Spirit Sings: Artistic Traditions of Canada's First Peoples* and to the London Regional Art Gallery for an exhibition of the work of the late Mr. Selwyn Dewdney, who was a departmental research associate.

Teaching and Scholarly Meetings Dr. Storck presented invited papers at the International Quaternary Association Conference, Ottawa, and at a chert sourcing symposium in Lockport, New York. He also lectured at the University of Toronto, the Brodie Club, Innis College, and the Uxbridge Historical Society. Dr. Kapches presented a paper at the Eastern States Archaeological Federation conference, Charleston, and lectured to the North York Women's Club, the Toronto Field Naturalists, the McMaster Anthropological Society, and the Scarborough Mineralogy and Gem Society. Dr. Graham presented papers at the annual meetings of the American Anthropological Association in Chicago and the Society for American Archaeology in Phoenix; she also lectured to the Toronto Society of the Archaeological Institute of America. All curatorial staff lectured in the series "Living and Learning in Retirement" at Glendon Campus, York University, North York. Dr. Storck served on advisory committees for a Ph.D. candidate at the University of Toronto and an M.A. candidate at Trent University, Peterborough. Dr. Graham taught a course in early civilizations at York University, and served as external examiner for a Ph.D. candidate in the Department of Archaeology, Simon Fraser University, Burnaby.

Public Service In December 1987 Dr. Kapches became chairman of the Toronto Historical Board, as well as of its Executive and Museum of Toronto committees. She also received an Award for Service from the City of Toronto. Dr. Storck, reappointed to the Ontario Heritage Foundation for a second five-year term, continued to serve on its Archaeological and Niagara Escarpment committees. He is chairman of the Hamilton-Scourge Study Team and Ontario Ministry of

Culture and Communications representative on the Don Valley Brickyards Park Committee of the Department of Parks and Recreation, Metropolitan Toronto.

TEXTILE DEPARTMENT

Brigitta Schmedding, Associate Curator in Charge

STAFF Mrs. Mary C. Holford, assistant curator, retired after twenty-six years of work devoted to the study of Western fashion costume in the ROM's textile collection. Adrienne Hood, curatorial fellow, completed her doctoral dissertation and received her Ph.D. in American and European History from the University of California, San Diego. Ms. Alexandra Palmer was given a contract position as curatorial assistant, to continue Mrs. Holford's work on gallery development. Dr. Mokhtar El-Homossani was appointed research associate in the department.

RESEARCH AND FIELD WORK Miss Louise W. Mackie, curator, together with American and Belgian colleagues, started the project International Documentation of Traditional Textile Technology in Cultural Contexts; field work began in Egypt and Morocco. Miss Mackie also researched repeat patterns in Turkish silk and ceramic tiles. Dr. Schmedding focused her research on the collection's 18th-century woodblock-printed cottons, developing new categories for analysis of these fabrics. The work involved photography by Mr. William Robertson of the Photography Department and study trips to France, Switzerland, and the United States. Some of the findings were the subject of an article that will be published in the festschrift for the Swedish textile history scholar Agnes Geijer.

The title of Ms. Hood's doctoral dissertation was "Organization and Extent of Textile Manufacture in Eighteenth Century Rural Pennsylvania: A Case Study of Chester County." Ms. Angela Sheng, curatorial fellow, continued work on her doctoral dissertation on 13th-century Chinese textile development. Ms. Palmer completed a report on museum mannequins that was published as a supplement to the *Textile Conservation Newsletter*. Professor Michael Gervers, research associate, studied and collected nomadic felts in Outer Mongolia, with financial assistance from the Veronika Gervers Memorial Fund.

LECTURING Miss Mackie gave the lecture "Technology and the Decorative Arts" at the Eighth International Congress of Turkish Art, Cairo. She also lectured in conjunction with the exhibition *The Age of Suleyman the Magnificent* in the United States. Ms. Palmer gave a paper on museum mannequins at the Fourteenth Symposium of the Costume Society of America and one on a Toronto tailoring firm at the Sixth Annual Conference on Textiles.

EXHIBITIONS AND GALLERY DEVELOPMENT Mrs. Dorothy K. Burnham, C.M., research associate, acted as guest curator for the Doukhobor show *Unlike the Lilies*, organized by the Provincial Museum of Alberta, Edmonton. The show, with loans from the ROM, opened in January and will travel through Canada until the end of 1989. Progress was made in the development of the Fashion Costume and Textile Gallery within the European Cluster and of the Nubian Textile Gallery in the Mediterranean Cluster.

PUBLIC SERVICE Staff members identified 160 artifacts and gave 28 tours through the textile storage to interested groups and individuals. A total of 120 visitors came to the department to conduct research or consult with staff members. Some of the curators served on ROM committees and those of several international textile associations.



Mrs. Judith Cselenyi, technician, in the textile collection storage with one of the three new rolling carts designed to move historic textiles safely.

COLLECTION MANAGEMENT AND ACQUISITIONS Collections documentation and maintenance continued to improve with the help of two volunteers and two data entry operators hired through a Museum Assistance Program grant. Three rolling carts, designed to the department's specifications, were purchased with the financial assistance of the Textile Endowment Fund Committee. The department was fortunate to receive many gifts of costume and accessories dating to the late-19th and 20th centuries, mainly from old Toronto families.

WEST ASIAN DEPARTMENT

Edward Keall, Curator in Charge

With two members of the staff seconded to the ROM administration, the department appeared on the surface to be badly depleted. However, with the help of casual salaries furnished by the Museum's operational budget, supplemented by grants from the Social Sciences and Humanities Research Council of Canada and by funds from the University of Toronto cross-appointments, the department was able to maintain a respectable program of research and collection management. The federal government's Summer Employment Experience Development program was also invaluable in helping maintain productivity.

Exhibit Design Services supplied the salary to hire a guest



Members of the West Asian Department at work in a corner of the Museum's expedition compound in Zabid, Yemen, in January 1988.

curator, Mr. Dan Rahimi, who provided the expertise appropriate for the development of the exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum*. His intellectual contribution to the department extended beyond his mandate of exhibit design.

Through the reclassification of one of the technicians' positions and the experience of Mr. Robert Mason, the department started to develop a comprehensive program of technical ceramic analysis. The application of petrography to the study of Middle Eastern pottery, in addition to the use of X-rays and other innovative approaches, promises to make the department a pioneer in this field of research.

FIELD WORK AND RESEARCH The long-term preparation from past excavation projects in Iran and Iraq continued. A triumphant moment, after years of intense labour, was the appearance of a two-volume study coauthored by Dr. Lisa Golombek, curator, on the subject of Timurid architecture. Ancillary research on the dynasty also involved studies of miniature paintings and other minor arts, including blue and white pottery, which is being subjected to petrographic analysis for the first time.

Three members of the department were involved in the first season of ROM excavations in the Yemen Arab Republic, as part of a long-term archaeological program that is focusing upon Zabid, a medieval Islamic university city. Elsewhere, the pre-Islamic interests of the department were upheld by participation in projects organized in Jordan by the American School of Oriental Research (ASOR) and in Turkey by the University of Pennsylvania, Philadelphia.

COLLECTIONS A collection of type samples of medieval Islamic pottery was acquired from the American Research Center in Egypt's excavations in Old Cairo and of Bronze Age pottery from the ASOR work in Jordan. Working samples were also brought back from the department's excavations in Yemen. Loans were acquired of appropriate material for petrographic analysis from the Ashmolean Museum, Oxford; the University Museum of Philadelphia; the Metropolitan Museum of Art, New York; and from the collection of Dr. Ernst Grube.

COLLECTION MANAGEMENT All aspects of the department's work, but particularly collection management, were enhanced by the up-grading of the multi-user Xenix computer system. Catalogue descriptions of a large collection of palaeolithic hand tools from Mount Carmel in Israel dating from 80 000 to 10 000 B.C. were entered into the system. The photographic archive was brought under control by the creation of a computerized search and retrieval cataloguing system for all of the Islamic arts.

The department was also able to participate in the successful ROM Reproductions program. The most popular item produced was a paper plate depicting a Turkish horse, after a vessel in the loan collection of Mrs. Gilbert Bagnani.

LECTURES AND PUBLIC SERVICE Staff continued to teach at the University of Toronto and presented a number of public lectures and scholarly conference papers. Members of the department served as organizers for various conferences, including the International Symposium on Archaeometry in Toronto and the symposium "The Ubaid-Period Reconsidered" in Elsinore, Denmark. Lectures within the Museum included the subjects of the traditional crafts of Islam and the archaeology of the Holy Land.

DEPARTMENT OF BOTANY

Timothy A. Dickinson, Assistant Curator in Charge

FIELD WORK Dr. J. H. McAndrews, curator, carried out field work in Florida and Ms. Deborah Metsger, curatorial assistant, worked in the Parry Sound District; the projects were funded by two grants from the ROM Science Cooperative Field Studies Committee, received jointly with the Departments of Vertebrate Palaeontology and Ornithology, respectively. Dr. John Krug, research fellow, collected fungi in Indonesia and Hong Kong. Dr. Dickinson studied hawthorns in Ontario, Oregon, and Washington and in Louisiana and Texas.

PUBLIC SERVICE Dr. McAndrews, department staff, and collaborators prepared seven plates describing the vegetation history of Canada that were published by the University of Toronto Press in the *Historical Atlas of Canada*. Dr. Dickinson gave a lecture on research uses of microcomputers and Ms. Metsger and Dr. McAndrews led a spring wildflower walk. Ms. Metsger; Ms. Elizabeth Heighington, technician; and Ms. Emily Hamilton, volunteer, participated in the program "Spring into Nature." Ms. Heighington and Ms. Metsger also prepared materials for a Discovery Box. In addition to giving identifications of potentially poisonous plants over the telephone, staff presented information on plant identification at the March school break. Work began on a pamphlet for the public about plants and plant identification.

TEACHING AND LECTURING Staff continued to work with the University of Toronto. Dr. McAndrews taught the course "Ecological Plant Geography and Palynology" and served on two thesis examination committees. Dr. Dickinson taught

half of the course "Flora and Vegetation of Ontario;" supervised a research project by Ms. Svenja Belaoussoff, an undergraduate in the Department of Botany; advised graduate students in the Department of Botany and the Faculty of Forestry; and gave a lecture on plants to students in the Department of Art as Applied to Medicine. As part of these students' unit on botanical illustration, the department also provided projects and helped to evaluate them, in cooperation with the Department of Botany and the Metropolitan Toronto Zoo. Dr. McAndrews gave a lecture on the *Historical Atlas of Canada* at the University of Minnesota, Minneapolis. Ms. Metsger gave a lecture on poisonous plants to the Etobicoke Horticultural Society.

STAFF Ms. Heighington completed her traineeship, and Ms. Angela Raljic, technician, joined the department through an Ontario Ministry of Community and Social Services grant to the Museum.

ACQUISITIONS, LOANS, AND COLLECTION MANAGEMENT The department received a 19th-century scrapbook herbarium and a souvenir herbarium from Jerusalem from Mrs. Mary Mounfield. Mr. and Mrs. O. E. Devitt donated a collection of 1131 35-mm colour transparencies. A research collection of over 5000 specimens of circumboreal and arctic vascular plants was donated by Professor J. C. Ritchie of Scarborough College, University of Toronto. Professor J. B. Phipps of the University of Western Ontario, London, donated 19 specimens of Texan *Crataegus*. Over 200 vascular plant specimens were received on exchange from three other institutions. A total of 1869 specimens were mounted by Ms. Heighington, Ms. Raljic, and volunteers Mrs. Jo Barzynsky, Ms. Hamilton, and Mr. Paul Robinson, and 1126 specimens were accessioned into the Vascular Plant Herbarium. Dr. Krug inserted 1332 new specimens of fungi and lichens into the Cryptogamic Herbarium. Ms. Hamilton reorganized the reprint collection in the Vascular Plant Herbarium. Over 3000 colour transparencies were accessioned and catalogued on a microcomputer database. Fifteen loans of herbarium specimens were made to or from the department. Ms. Metsger organized the purchase of 121 000 sheets of acid-free herbarium paper by eight herbaria in Ontario and Quebec. As a result, participating institutions obtained sufficient supplies for several years' operation at an unusually low price.

RESEARCH Dr. McAndrews continued research on the pollen analysis of sediment, Dr. Krug on soil fungi, and Ms. Metsger and Ms. Carolyn Seburn, research assistant, on microcomputer-assisted identification of poisonous plants. Dr. Dickinson made progress on studies of variation in hawthorns, including an embryological study of the *Crataegus douglasii* complex carried out with Ms. Belaoussoff.

DEPARTMENT OF ENTOMOLOGY

D. Christopher Darling, Assistant Curator in Charge

FIELD WORK The department continued to concentrate collecting efforts in tropical forest habitats threatened by human activities, with the focus this year on Costa Rica. Dr. Darling and Mr. Brad Hubley, technician, travelled there in early February, where they were joined by Dr. Paul Hanson, Universidad de Costa Rica, for a two-week trip collecting in habitats ranging from cloud forest at 3500 m to lowland tropical rainforests. The work in the cloud forest habitat near Monteverde and in the adjoining Peñas Blancas valley was facilitated by Dr. Adrian Forsyth, research associate. Dr. Glenn B. Wiggins, curator, joined the group for field work in Monteverde and undertook intensive field work in Japan. Specimens for the planned gallery exhibits were gathered in Costa Rica and locally.

ACQUISITIONS AND COLLECTION MANAGEMENT Many valuable donations to the collection were received during the year, but of particular significance was the gift of over six thousand specimens of Lepidoptera and Coleoptera from Mr. Walter Plath, Sr. An extensive collection of entomological books and reprints was donated by Professor A. S. West.

Considerable progress was made in computerizing various aspects of collection management, with the assistance of Mr. Ahmed Bulbulia, under the auspices of the Futures program. The Residue Storage and Retrieval Collection became operative with the development of a database and an interactive computer program, which allows the user to select samples that meet criteria of locality, collecting method, or habitat type. Mr. Rein Jaagumagi and Mrs. Patricia W. MacCulloch, curatorial assistants, collated information for a catalogue of type specimens.

RESEARCH Dr. Darling's work on parasitic Hymenoptera, supported by a Natural Sciences and Engineering Research Council of Canada (NSERC) operating grant, was advanced through the publication of a review of the genus *Krombeinius* (Perilampidae). A comparative morphological study was completed, and a study trip to the British Museum (Natural History), London, advanced two taxonomic revisions. World Wildlife funded a project designed to investigate the potential of parasitic wasps in controlling blowflies that attack



Mr. Brad Hubley, technician, excavating a termite nest during a field trip to Costa Rica.

nestling bluebirds. In Dr. Wiggins's research program on Trichoptera, supported by NSERC, four papers were published. Mrs. MacCulloch continued her work on larval characters of Hydropsychidae.

TEACHING As cross-appointed professors in the University of Toronto's Department of Zoology, Dr. Darling supervised the graduate program of one Ph.D. student and Dr. Wiggins directed the work of three Ph.D. students. Dr. Darling participated in two undergraduate courses and coordinated the graduate course in phylogenetic systematics. Dr. Wiggins presented an invited lecture on his research on Trichoptera at Osaka Prefectural University, Japan.

MUSEUM AND PUBLIC SERVICE Dr. Darling presented the Vaughan Lecture and continued to serve on the Life Sciences Editorial Board and Curatorial Promotions Committee and on the Steering Committee at the University of Toronto investigating the feasibility of an interdepartmental program in evolutionary biology. Dr. Wiggins remained a member of the Scientific Committee for the Biological Survey of Canada (Terrestrial Arthropods). The department participated in popular public programs for the March school break and "Spring into Nature."

Staff received a large number of requests for information from other museums, government agencies, industries, and private individuals. The department continued to be a principal resource for identification of Trichoptera for research workers throughout North America. Active loan exchange with other institutions continued. Information and photographic material were provided to the media on numerous occasions. Miss Margaret L. Pickles, technician, and Mr. Hubley presented talks and a live insect show to school classes in conjunction with World Wildlife's Rainforest program.

DEPARTMENT OF GEOLOGY

S. B. Lumbers, Curator in Charge

ACQUISITIONS AND COLLECTIONS In response to demands created by gallery development, academic and industrial research, and public interest in geological phenomena, the petrology collections were put to more use and enlarged. The cataloguing of 3305 rock specimens and 6350 rock thin-sections was completed, and 620 new specimens were added. New acquisitions included reference specimens radiometrically dated in the geochronology laboratory and suites of rocks from Arizona, China, India, Norway, Namibia, and Ontario.

LOANS During the year, twenty loans were processed, as a result of requests from Canadian and foreign reseachers and institutions. Material from the collections was also used to support several programs in the Museum arranged by Education Services and to meet requests from the media.

RESEARCH AND FIELD WORK Research focused on the evolution of particular regions of Earth's crust, the origin of specific kinds of rocks, and the timing of mineralization events. Geochronological studies were directed by Dr. T. E. Krogh, curator, and petrological studies by Dr. Lumbers. The department is also training scientists from Scotland and the United States, so that they can establish geochronological laboratories similar to the ROM's in their institutions. Twelve postgraduate students and visiting scientists used the research facilities.

The forty-six entries in the staff bibliography give some results of the current research. Twenty-nine projects were carried out on rock sequences in Newfoundland, Nova Scotia, Quebec, Ontario, Manitoba, Arizona, Australia, Brazil, Europe, and Africa. Grants totalling over $340 000 supported most of this work; they came from a variety of sources, including the Ontario Geological Survey, the Natural Sciences and Engineering Research Council of Canada, and research agreements concluded with governments and industry in Canada and abroad.

The research program and requests for laboratory services from ROM departments, industry, and government agencies led to the production of an impressive array of analyses and research materials. In the Jack Satterly Geochronology Laboratory, over 6000 kg of rock, representing 442 separate samples, were crushed and processed for isotopic age-dating, and 1794 isotopic analyses were made. In the rock preparation laboratory, numerous rock and mineral specimens were cut and polished for display and study purposes, 4705 rock thin-sections were made, and 159 rocks were prepared for chemical analysis.

GALLERY DEVELOPMENT Curatorial and technical staff produced a great deal of material for the final design of the Earth Sciences Gallery. This work involved preparation, testing, and organization of text and information for individual display units, along with the selection of specimens and graphics.

TEACHING AND LECTURING Dr. Krogh and his associates supervised graduate theses. Departmental staff gave many scientific and popular lectures and conducted several tours of the facilities for students and visiting scientists. Staff were also involved with the Summer Experience program of ROM Creative Arts and the March school break activities at the Museum.

PUBLIC SERVICE Seventy identifications of rocks were made for the general public and other ROM departments. Approximately 150 inquiries for geological information by the general public and the media were processed, and the collections were used by over 40 researchers from government, industry, and universities in Canada and abroad. Curatorial staff reviewed scientific manuscripts for colleagues and a host of scientific organizations and gave consultations to individuals from government, industry, and research institutions. Staff members served on several ROM committees and on a number of boards and commissions of professional organizations.

DEPARTMENT OF ICHTHYOLOGY AND HERPETOLOGY

Richard Winterbottom, Curator in Charge

FIELD WORK Several trips were made in Ontario for specific research projects and to gain knowledge of the local fauna. Mr. Paul Chippindale, graduate student, took part in a ROM Cooperative Field Studies trip to Liberia, where he conducted a survey of the amphibians and reptiles of Sapo National Park. This trip yielded more than fifty species, some likely to be new to science. In Baja California and on islands in the Sea of Cortez, Dr. Robert W. Murphy, associate curator, and Mr. Les Lowcock, graduate student, collected rattlesnakes, including a possible new species and two specimens of the elusive rattleless rattlesnake.

TEACHING AND LECTURING Dr. Edwin Crossman, curator, and Dr. Winterbottom gave the University of Toronto's ichthyol-

ogy course this year. Dr. Winterbottom and Dr. Murphy each taught portions of the phylogenetics course, and Dr. Murphy taught a section on phylogenetics in the first-year biology course (BIO 110). The curators supervised three M.Sc. and six Ph.D. students and served on the committees of eleven other graduate students.

The combined meetings in Ann Arbor of the American Society of Ichthyologists and Herpetologists (ASIH)/Society for the Study of Amphibians and Reptiles/Herpetologists' League/Elasmobranch Society saw presentations by Dr. Murphy and Dr. Winterbottom, curatorial assistants Mr. Erling Holm and Ms. Mary Burridge, and five graduate students, one of whom presented an invited paper. Dr. Murphy's paper, "ROMMY," a philosophical statement about controversial methods of phylogenetic data analysis, was presented in the form of a "rock opera" and called on the talents of seven members of the department plus three other Canadian scientists. More than twenty other popular and professional lectures were presented, including four at the ROM Research Colloquium and several by Dr. Crossman, as chairman of the Ontario Fisheries Advisory Council.

PROFESSIONAL AND PUBLIC SERVICE More than 200 inquiries from the public were answered this year on a variety of subjects. Eleven interviews were given to newspapers, magazines, and radio stations, in addition to over 50 questions answered for the media. Governments, businesses, and agencies brought another 150 questions and 300 specimens for identification (including for the Sun Fishing Challenge). Dr. Crossman's expertise was called upon in the litigation case *The State of Wisconsin vs. Chippewa Indians*. He was also a judge for the Molson's/Ontario Federation of Anglers and Hunters Big Game Fish Contest. Twenty-seven manuscripts were reviewed for various journals, and Dr. Winterbottom handled 24 manuscripts as an associate editor of *Systematic Zoology*. Letters of recommendation or evaluation were provided for 18 people.

Dr. Winterbottom and Dr. Murphy were elected governors of the ASIH, Dr. Murphy and Dr. Crossman continued to serve on its Long Range Planning and Finance Committee, and Dr. Murphy sat on its Editorial Board. Dr. Crossman remained chairman of the Ontario Fisheries Advisory Council, director-at-large of the Ontario Federation of Anglers and Hunters, and a member of the Ontario Ministry of Natural Resources Esocoid Research Committee, the Committee on the Status of Endangered Wildlife in Canada, and the board of the National Freshwater Fishing Hall of Fame. Dr. Murphy served on the board of the Ontario Herpetological Society. Drs. Winterbottom, Crossman, and Murphy also sat on various boards and committees of the ROM and the University of Toronto.

RESEARCH AND GRANTS Dr. Winterbottom received funds from the Natural Sciences and Engineering Research Council (NSERC) to continue his research on the anatomy, phylogeny, and biogeography of perciform fishes. Dr. Crossman received funding from NSERC for his research on the systematics, biology, and zoogeography of esocoid fishes and from the Ontario Renewable Resources Research Grants Programme for work on the analysis of the distribution of Ontario fishes. Dr. Murphy received a grant from NSERC for his research on the evolution of desert reptiles, from the United States National Institutes of Health for his study with Dr. D. J. Morafka of California State University at Dominguez Hills on evolutionary relationships of rattlesnakes, and from the Department of Zoology, University of Toronto for learning RNA sequencing. The department received two grants from the Section 38 program for assistance in the electrophoresis lab and in collection maintenance.

ACQUISITIONS AND LOANS More than eight hundred lots of fishes, amphibians, and reptiles were acquired through departmental field trips, as exchanges, and as gifts. Notable gifts came from the Ontario Ministry of Natural Resources, the federal Department of Fisheries and Oceans, and the Reptile Breeding Foundation, Picton. Collections were made on the department's behalf in Diego Garcia, China, and Grand Comore. Forty-seven loans were sent to other institutions, artists, and teachers.

GALLERY DEVELOPMENT Work on the Ichthyology and Herpetology galleries was minimal this year, because their openings were deferred to 1992. The Ichthyology Gallery benefited greatly from the generosity and cooperation of the Ontario Ministry of Natural Resources and the federal Department of Fisheries and Oceans, which collected specimens on behalf of the department.

DEPARTMENT OF INVERTEBRATE PALAEONTOLOGY

Peter H. von Bitter, Curator in Charge

ACQUISITIONS Trilobite specimens from Mr. William Hessin, Mr. Kevin Brett, and Dr. Rolf Ludvigsen, and beautiful examples of Ammolite from Mr. René Vandervelde were welcome donations. Apart from fossils collected by staff, an important acquisition was a collection from Mazon Creek, Illinois. This 300-million-year-old fauna is unique in its preservation and in its representation of two environments — land and sea.

LOANS In addition to being studied scientifically, the collections were utilized in unusual ways. The National Museum of Natural Sciences, Ottawa, and TVOntario borrowed material for the docudrama "Museum Heroes," the Ontario Ministry of Tourism and Recreation portrayed fossils in a travel brochure, the Niagara Escarpment Commission incorporated trilobites into an award, and designers studied invertebrate fossils for ideas for the dome ceiling of the new Museum of Civilization in Ottawa.

FIELD WORK Dr. von Bitter and Dr. Desmond Collins, curator, visited and collected at classic West German fossil localities in Messel, Solenhofen, the Ries Crater, and Bundenbach. Dr. von Bitter did field work in Newfoundland with Dr. Steve Scott of the University of Toronto; Dr. Paul Schenk of Dalhousie University, Halifax; and Dr. Ryo Matsumoto of the University of Tokyo. Mr. David Rudkin, curatorial assistant, and Mr. Peter Fenton, technician, collected at southern Ontario localities. A three-month expedition, led by Dr. Collins, to the Burgess shale in Yoho National Park, British Columbia, commenced in June.

RESEARCH Dr. Collins completed an initial study on the growth of *Nautilus,* and Dr. von Bitter continued research on conodont microfossils. Mrs. Janet Waddington, curatorial assistant, studied the infrared spectra of amber. Mr. Rudkin and Mr. Ronald Tripp, research associate, finalized part of their *Isotelus* trilobite study. A discovery by Dr. von Bitter of fossil tube worms on the Port au Port Peninsula, Newfoundland, has led to further research. These tube worms, associated with other well-preserved fossils and sulphides, are among the oldest, and best preserved, known. They indicate that biological communities based on chemosynthesis (only in recent years discovered living in the deep oceans) already existed in the Carboniferous, 330 million years ago.



Vent- and sulphide-associated tube worms (indicated by arrow), approximately 330 million years old, in bryozoan/microbial carbonate mound, Port au Port Peninsula, Newfoundland.

Teaching and Lecturing Dr. von Bitter taught two micropalaeontology courses and Dr. Collins an introductory biology course at the University of Toronto. Mr. Rudkin presented talks to the ROM Saturday Morning Club and the Scarborough Gem and Mineral Club. Staff members presented papers involving their research interests at diverse meetings.

Gallery Development The opening of the new Invertebrate Palaeontology Gallery was rescheduled for 1992; planning and script preparation were, therefore, halted.

Public and Professional Service Mr. Rudkin and Mr. Fenton repeated their Continuing Education course on the geology and fossils of the Niagara Escarpment. Mrs. Waddington and Mr. Rudkin identified fossil specimens and answered questions for many curious visitors and collectors. For the March school break, departmental staff set up the hands-on area "Life in the Sea before the Dinosaurs" for the younger visitors. The resulting murals were delightful and imaginative.

Dr. von Bitter and Miss Joan Burke, departmental assistant, editors for *Palaeontographica Canadiana*, saw a graptolite monograph through to publication. Dr. Collins and Mrs. Waddington served on the executive of the Geological Association of Canada.

Awards and Honours Dr. Collins received an $18 000 research contract, plus logistical support, from Parks Canada to help in the excavation of new Burgess shale fossil sites.

DEPARTMENT OF INVERTEBRATE ZOOLOGY

Kathryn A. Coates, Assistant Curator in Charge

Gallery Development and Exhibitions Work continued on the Living Invertebrates Gallery until September. The Stage III gallery plan was presented by the gallery team to other Museum departments for comments. Ms. Maureen Mahler, technician, and Ms. Sheila C. Byers, curatorial assistant, tested a salt-water aquarium system for live displays, freeze-dried specimens for habitat displays, and conducted conservation experiments. The department sponsored the temporary exhibition *Beauties of the Coral Reef* from the Smithsonian Institution, Washington, D.C.

Acquisitions and Collections An exceptional glory-of-India cone shell was purchased, and Mr. Robert Barnett, secretary to the Board of Trustees, brought unique shells back from expeditions to the Philippines and Liberia. Display-quality king crabs were donated by Amax of Canada Limited, Pacific Coast. The department received by donation its first specimens of Pogonophora and Vestimentifera — deep sea worms — from sites off British Columbia. Included were juvenile vestimentiferans, described for the first time this year. Several hundred marine invertebrates were collected from British Columbia by Ms. Byers and Ms. Mahler. The gift of Hecate Strait collections by Dr. R. O. Brinkhurst, research associate, complemented their work. Collections of oligochaetes from China, Peru, Oregon and Washington states, and Quebec were donated as well.

Field Work and Research A major expedition to the central-north coastal waters of British Columbia was undertaken. The department joined the Royal British Columbia Museum, Victoria, on the vessel *J. P. TULLY* of the federal Department of Fisheries and Oceans. Dr. Dale R. Calder, associate curator, visited South Carolina to study the seasonality of hydroids. He completed part one of his monograph on Bermuda hydroids and drafted part two during a six-month sabbatical. Dr. Coates received her Ph.D. from the University of Victoria and continued her phylogenetic studies of enchytraeid oligochaetes. She studied North Pacific vestimentiferans with Dr. Verena Tunnicliffe of the University of Victoria and Dr. A. and Dr. E. Southward of Plymouth, England. Dr. Anita Brinckmann-Voss and Dr. Edward Bousfield, research associates, worked on hydrozoans and amphipods, respectively. Department staff visited several museums to consult and examine collections.

TEACHING AND LECTURING Dr. Coates gave two lectures on her research at the meetings of the Aquatic Oligochaete Biologists in Baton Rouge, Louisiana, and taught an enchytraeid identification workshop at Mote Marine Laboratories, Sarasota, Florida. Ms. Byers attended the meetings of the Society for the Preservation of Natural History Collections and the American Association of Museums in Pittsburgh and, with Dr. Coates, the Leech Society Meetings in Ottawa. Ms. Byers spoke on invertebrates to the aquarium societies in Toronto and Hamilton. Dr. Calder and Dr. Coates taught part of the University of Toronto course on phylogenetics. Dr. Calder supervised an undergraduate's honours project and was on a Ph.D. examining committee. Dr. Coates was a member of a Ph.D. candidacy committee.

The department organized lectures at the Museum by Dr. A. and Dr. E. Southward, Ms. P. Shepard of the University of Victoria, Dr. D. R. Brooks of the University of British Columbia, Vancouver, and M. Moe of Plantation, Florida.

PUBLIC SERVICE Educational magazines, television studios, and publishing houses consulted the department. Staff gave presentations to children at the March school break, the "Spring into Nature" program, the Creative Arts summer day-camps, and the Saturday Morning Club. Telephone calls and letters from students, professionals, and the general public were received from as far away as Brazil and Japan, with requests for information, identifications, and loans. Institutions assisted included universities, federal departments, and provincial ministries. Several manuscripts were reviewed for colleagues, students, and scientific journals.

AWARDS AND HONOURS Dr. Coates received a ROM Science Cooperative Field Studies grant for a collecting trip to Peru in summer 1988.



Detail of the Bat Cave.

DEPARTMENT OF MAMMALOGY

Judith L. Eger, Associate Curator in Charge

ACQUISITIONS AND COLLECTIONS Although not numerous, additions to the collection were sizeable. The skeleton of a minke whale collected from the shore of James Bay was sent to the ROM by the Ontario Ministry of Natural Resources. A forty-year-old hippopotamus, which had died at the Metropolitan Toronto Zoo, was a welcome addition to the collection. Eighty-six mammals, including viverrids, rodents, shrews, and bats were collected in Liberia. Tissues of approximately 250 Neotropical rodents were brought to the department by Dr. Mark Engstrom, who took up his position of assistant curator at the beginning of June.

As a result of assistance given during an advertising campaign, Fujitsu Canada most generously donated a printer to the department. This printer, to be used primarily for collection management, has allowed computerization of the collection to proceed more rapidly than would otherwise have been possible.

LOANS The department processed a total of forty-four loans this year. Twenty-five were associated with research in the department, and the rest were requests from scientists outside the Museum to borrow specimens.

FIELD WORK Dr. Mark E. Taylor, associate curator, led a team of biologists from the Deparments of Mammalogy and Ichthyology and Herpetology and from the Metropolitan Toronto Zoo to Sapo National Park, Liberia, in January and February. Some interesting additions to the collection were obtained, including a rare Liberian mongoose, *Liberiictis kuhni,* which was rescued from the stew pot, as well as a live pangolin for the zoo.

RESEARCH Dr. Eger completed her review of the South American free-tailed bat family, Molossidae, and with Ms. Susan Woodward, curatorial assistant, began an analysis of the distribution of California mammals. Dr. Taylor continued his research on African mongooses. Mr. Burton Lim, curatorial assistant, presented the results of his work on fruit bats of the genus *Artibeus* at two conferences. Dr. R. L. Peterson, curator emeritus, concentrated on systematics of African and Asian *Pipistrellus,* and his graduate student, Patricia Ross, continued her thesis research on systematics of Palaearctic hamsters.

GALLERY DEVELOPMENT The Bat Cave exhibit, the Hardwood Forest diorama, a section on North American mammals, and an introductory display on mammals opened on 16 January. The new displays were well received by both the public and the press. Dr. Eger was interviewed by several newspapers and magazines, including the *Toronto Star, Now,* the *Globe and Mail,* and *Maclean's.* She appeared on the television program "Canada AM" and gave interviews on CJRT, CBC, and CHUM radio stations. The popularity of the Bat Cave has made it necessary to provide a sound and light program for periods of heavy use and an instructive program for quieter times. Dr. M. Brock Fenton, research associate, and some of his graduate students led bat-education programs for the public in conjunction with the opening of the Bat Cave.

PUBLIC SERVICE AND TEACHING The department cohosted the Seventeenth Annual North American Symposium on Bat

Research along with the Department of Biology, York University, Downsview. Interviews associated with the conference gave the museum advance publicity for the opening of the Bat Cave. Public lectures included an introduction to a film, slide shows on bats for seniors and ROM volunteers, as well as a lecture on the collections and the gallery for ROM members. Dr. Taylor taught a mammalogy course (ZOO 466Y) at the University of Toronto.

DEPARTMENT OF MINERALOGY

Frederick J. Wicks, Curator in Charge

GALLERY DEVELOPMENT The department continued to work on the Earth Sciences Gallery with the Department of Geology, under the coordination of Dr. Robert I. Gait, curator. The energy and support of Mr. Gerald F. Levenston was particularly important in developing the fundraising campaign for the S. R. Perren Gem Room. A reception was held on 8 March to thank the donors to this display and to interest new supporters. The feasibility of a ROM-Sotheby's jewellery auction as the next fundraising event was investigated.

ACQUISITIONS AND COLLECTIONS A total of 60 gem and 554 mineral specimens were registered, including 44 species new to the collection. Noteworthy gifts were an impressive amethyst geode from Mr. and Mrs. K. W. Lee of Toronto; a collection of fine micromounts from Mont St-Hilaire, Quebec, and world localities from Mr. and Mrs. R. A. Anderson of Toronto; an unusual carved opal from Mrs. J. B. MacNeill of Weymouth, Nova Scotia; a ring with a magnificent 2.95-carat diamond from the estate of Mrs. H. Dales; and a fine diamond ring from the Ontario Heritage Foundation. Volunteers Mrs. Maurine Charlton, Mrs. Molly Grzedzielski, and Mrs. Edith Dew assisted with cataloguing.



Mr. P. Waisberg, summer student, supporting the Brazilian amethyst geode donated by Mr. and Mrs. K. W. Lee of Toronto.

LOANS The department lent 106 specimens to researchers and institutions around the world and supplied 15 photographs to educational publishers and institutions. The generous loan of a magnificent 102-carat faceted tanzanite by Mr. Peter Myerson of Toronto gave the displays at the S. R. Perren Gem Room reception an added interest.

RESEARCH AND FIELD WORK Seven hundred and eighty-four minerals were identified by X-ray powder diffraction, and 45 were analyzed by X-ray fluorescence and 20 by thermal and evolved gas analysis for ROM and other scientists. Dr. Joseph A. Mandarino, curator, continued work on tellurium minerals. Dr. Gait made progress with his work on the minerals of the Nanisivik mine, Baffin Island, North West Territories. Mr. B. Darko Sturman, associate curator, continued optical studies of new minerals. Dr. Wicks continued studies on serpentine minerals, Colombian emerald deposits, and thermal and evolved gas analysis of minerals. Field work was carried out in British Columbia, the Yukon, Ontario, Quebec, New Jersey, and New South Wales, Australia.

TEACHING AND LECTURING Much of the department's teaching occurs with the Department of Geology, University of Toronto. Dr. Mandarino taught a fourth-year undergraduate course on X-ray diffraction, participated in the Mentorship program, supervised one graduate student, and served on a thesis committee. Dr. Wicks supervised two graduate students and one postdoctoral fellow and served as an external examiner for the University of Manitoba, Winnipeg. Mr. Sturman taught a short course on optical methods at the University of Zagreb. Curators, researchers, and students presented seven papers to scientific meetings in North America. Dr. Wicks gave an invited talk on thermoanalysis for the Clay Minerals Society. Members of the department gave six popular talks and participated in the program "Spring into Nature."

PROFESSIONAL AND PUBLIC SERVICE Over 370 requests for information were handled for the public and the media. The department received 80 visitors from a variety of backgrounds and institutions, conducted 12 tours of the research laboratories and collections, and assembled 9 temporary displays for different groups. Dr. Gait remained an executive editor of *Rocks and Minerals* and an abstractor for *Mineralogical Abstracts*. Dr. Mandarino continued as chairman of the Commission of New Minerals and Mineral Names of the International Mineralogical Association. Dr. Wicks was appointed to the Nomenclature Committee of the Clay Minerals Society. Staff members reviewed 12 papers for professional journals and served on several ROM and University of Toronto committees.

AWARDS Dr. David S. O'Hanley, postdoctoral fellow, won the 1988 Hawley Medal of the Mineralogical Association of Canada for the best paper published in the *Canadian Mineralogist* in 1987. Dr. Wicks received a $21 400 operating grant and Dr. Mandarino a $6000 operating grant from the Natural Sciences and Engineering Research Council of Canada. Dr. Wicks and Dr. O'Hanley received $20 400 from Cassiar Mining Corporation and Shea and Gardner of Washington, D.C., in support of their research on the Cassiar and Clinton Creek asbestos mines. Dr. O'Hanley received financial support from the Senate Research Committee of the University of Newcastle for a three-month visit to study the Woodsreef asbestos deposit in New South Wales.

DEPARTMENT OF ORNITHOLOGY
Allan Baker, Curator in Charge

GALLERY DEVELOPMENT The decision that the Bird Gallery would open in 1989 accelerated the pace of work this year. After considerable investment of staff time, final plans began to crystallize. The art auction—successful from both a fundraising and a public relations perspective—and a generous gift from the Canadian National Sportsmen's Shows generated additional impetus towards gallery completion.

ACQUISITIONS, COLLECTIONS, AND LOANS Additions to the collections included 1890 skins of the Barry Kent MacKay collection. Representation of grassland sparrows in the collections was enhanced by twenty Baird's Sparrows from North Dakota and Saskatchewan. The acquisition of an Ocelated Turkey gave the department a new genus for the skeleton collection. Songs of fifty endangered Black-capped Vireos were added to the growing bioacoustical archive.

Ninety-two loans were processed for artistic purposes, in addition to nineteen loans to the federal and provincial governments and institutions worldwide for education and research. Visiting scientists, artists, and students made use of the collections, and the department received many requests from other institutions for printout information on departmental holdings, available through the Canadian Heritage Information Network.

PUBLIC SERVICE Interaction with the public ranged from response to the countless inquiries received annually, to media appearances and public relations activities. Staff assisted all levels of government, schools, institutions, and naturalist organizations. The involvement of Dr. Ross James, associate curator, with the Committee on the Status of Endangered Wildlife in Canada and a Canadian Wildlife Service forest bird monitoring program furthered Canadian conservation efforts. Dr. Jon Barlow, curator, served on several committees for the Metropolitan Toronto Zoo.

FIELD WORK AND RESEARCH Dr. Baker's developing program in molecular systematics and evolution focused in part on his studies of genetic differentiation in chaffinches and gulls, funded by the Natural Sciences and Engineering Research Council of Canada (NSERC). He travelled to Morocco, Iberia, the Azores and Canary islands, and New Zealand collecting for this work. With the support of an Ontario Renewable Resources Research Grant, he used data from analysis of mitochondrial DNA to reconstruct the evolutionary history of Canada geese. The design and construction this year of a laboratory for studies of molecular systematics and evolution was an added stimulant to the already active curatorial research programs in this burgeoning field.

Dr. Barlow pursued NSERC-funded systematic studies of selected passerines based on molecular, morphometric, vocal, and ecologic data; his work took him to Oklahoma, Texas, and Alberta. With funds from the United States Parks Service, he undertook a study on the endangered Black-capped Vireo in west Texas. Dr. James continued research on habitat selection by birds in jack pine forests in central Ontario.

TEACHING AND LECTURING Dr. Baker and Dr. Barlow maintained their involvement with graduate and undergraduate teaching and guidance of graduate research programs in the Department of Zoology, University of Toronto. Dr. James delivered several lectures to students in the Faculty of Forestry, in his capacity as adjunct professor. Mr. James Dick, curatorial assistant, taught the course "Introductory Ornithology" for the Museum's Continuing Education program.

At the American Ornithologists' Union meeting in San Francisco, Dr. Baker spoke on genetic differentiation in chaffinches, and Dr. Barlow delivered a paper on the genetic affinities of the Black-capped Vireo. At the annual meeting of the Wilson Ornithological Society in Utica, New York, Dr. Barlow presented a paper on genetic polymorphism in a population of Eastern Meadowlarks. Dr. Baker was also invited to lecture on molecular evolution in geese at Scarborough College, University of Toronto.

AWARDS AND HONOURS In recognition of their work on *Breeding Birds of Ontario: Nidiology and Distribution, Volume 2: Passerines,* Dr. James and Dr. George K. Peck, research associate, were awarded a certificate of achievement by the Federation of Ontario Naturalists.

DEPARTMENT OF VERTEBRATE PALAEONTOLOGY
Gordon Edmund, Acting Curator in Charge

STAFF Dr. Chris McGowan, curator in charge, began a year-long sabbatical leave in January. Departmental assistant Mrs. Pam Purves retired in June; her grasp of departmental affairs will be sorely missed. The department continued to be blessed with many dedicated volunteers, who spent long hours identifying, cataloguing, or preparing fossil bones. The technical staff was also augmented by five assistants hired through the provincial government's Futures and Summer Employment Experience Development training programs. The position of Mrs. Maggie Dickson, artist/technician, was supported by a federal government retraining program.

COLLECTIONS, ACQUISITIONS, AND LOANS Over three thousand fossil and two hundred recent specimens were entered into the computerized catalogue, and three thousand more specimens await entry. Exchanges negotiated by Dr. Edmund brought in two large collections of fossil bones and the shell of a huge land tortoise, as well as most of the skeleton of a bison. Mastodon material was lent for display at the Welland County Museum and the Wallaceburg Historical Society.

EXHIBITIONS The panel-mounted skeleton of *Ornithomimus* was removed from display and reprepared, revealing much new information. This skeleton will be displayed later in a free-standing open mount. All staff members were involved with plans for the upcoming festival DINOSAURS. Planned displays include a restoration of the ostrichlike dinosaur *Dromiceiomimus* and a skeleton of the giant ground sloth *Eremotherium.* Because of concerns with safety in the preparation laboratories, the use of many chemicals and techniques was suspended pending implementation of required engineering controls.

FIELD WORK In June technicians Mr. Peter May and Mr. Andrew Leitch, with graduate student Mr. Scott Samson, collected large parts of the skeletons of three Triassic ichthyosaurs in northern British Columbia and located other specimens for future collecting. Dr Edmund excavated a site with mammoth remains in Florida, accompanied by Dr J. H. McAndrews, curator, Department of Botany, and a student. Work in May produced more material for dating this possibly 1-million-year-old site. Dr. Loris Russell, curator emeritus, successfully located, stratigraphically and geographically, several of the localities from the early days of the "dinosaur rush" in Alberta.



Technicians Thomas Carr *(left)* and Jarek Gwiazda applying skin texture to the life-size reconstruction of the ostrichlike *Dromicieomimus.*

Research Dr. McGowan completed a manuscript for a new edition of his book *Successful Dragons* and three manuscripts on ichthyosaurs, including a lengthy systematic review. He also published work on growth and function in living swordfish, which are similar to the fossil ichthyosaurs. Kevin Seymour, curatorial assistant, researched living and fossil giant cats, analysed faunal remains from two important fossil sites in Florida, refined computer-cataloguing techniques, and had a manuscript accepted for publication. Dr. Edmund made progress on his work on fossil giant armadillos and began preparing a detailed atlas of osteology of the giant ground sloth *Eremotherium* with graduate student Mr. Gerry De Iuliis.

Mr. Leitch produced exciting results with three-dimensional imaging of fossils, using medical CT scanning techniques. Mr. May continued comparison and testing of modern techniques and equipment for replicating rare fossil specimens. Machinist Brian Thompson developed special computer applications, including robotic controls for dinosaur reconstructions.

Teaching and Lecturing Dr. Edmund taught a course in vertebrate palaeontology, and Dr. McGowan part of a course in marine biology. Kevin Seymour and Mr. Leitch gave several lectures and conducted tours of the department. Three students from the Ontario College of Art, Toronto, studied moulding and casting techniques in the department. Mr. Varavudh Suteethorn of the Geological Survey of Thailand, supported by a Canadian government grant, spent three months with department staff, learning preparation, cataloguing, and exhibition techniques.

Professional and Public Service Dr. McGowan and Dr. Edmund each reviewed several manuscripts for scientific journals. Numerous bones were identified for the public and information was supplied in response to letters and telephone calls. Following the exciting discovery of a whale vertebra during subway construction near Toronto's waterfront, elaborate investigations revealed that the occurrence was not natural, and that the bone had been transported there by man in approximately A.D. 1850.

COLLECTIONS MANAGEMENT
Tosh Yamamoto, Coordinator

At the end of the last fiscal year, Mr. Yamamoto was asked to assume the headship of the Conservation Department in an acting capacity. Consequently, Mr. Gary Friedman, assistant to the coordinator, was called on to assume more direct responsibility for the operations of this department.

Mr. Friedman and Ms. Marili Moore and Ms. Lisa Fanuzzi, technicians, continued to assist the increasing number of curatorial departments that have become actively involved with data entry and administration of computerized collections information. The department, in its capacity as a central resource unit for automated collections management, coordinated the flow of data between the growing network of in-house microcomputer work stations and a central mainframe computer system operated by the federal Department of Communications through the Canadian Heritage Information Network (CHIN). Extensive hands-on support on a continuing basis was also given to those departments working on major updates to the computerized collections inventory. This inventory data will form the core of an integrated database system.

With the expertise of the systems design staff at CHIN, extensive developmental work and testing was done on the Database Integration Project. The implementation of this institutional system will allow the sharing of information between art and archaeology departments and will also provide a single access point for management and other administrative staff to query the complete database system.

Representatives from a number of Canadian, European, and Australian cultural institutions, who are also interested in developing systems to meet their computerized information management needs, met with Collections Management staff to discuss and get a firsthand look at some of the ROM's computer hardware and software systems.

Mr. Yamamoto was invited to present a paper in Cambridge, England, at the first annual meeting of an international conference sponsored by the Museum Documentation Association entitled "Collections Management for Museums." Delegates from more than twenty countries attended. Mr. Yamamoto's paper, "The Relationship between Collections and Risk Management," was included in the procedural and policy developments section of the conference.

In support of the University of Toronto Museums Studies Program, Mr. Yamamoto participated in discussions relating to the future structure of the courses, presented a lecture on aspects of automation and collections management, and served as an outside advisor to one of the students.

CONSERVATION DEPARTMENT
Tosh Yamamoto, Acting Head

With the resignation of Ms. Susan Wilson, head, Mr. Yamamoto, coordinator of Collections Management, was seconded by the Museum to serve as acting head until such time as the institutional strategic objectives and structure review

studies were completed. Ms. Janet Cowan, paper conservator, agreed to assume additional responsibilities to ensure that the professional aspects involved in running the department would be represented during Mr. Yamamoto's tenure. In November she was elected president of the OPSEU local. To alleviate some of the pressures associated with these developments, the Museum negotiated an exchange with the Canadian Conservation Institute (CCI), Ottawa, whereby a paper conservator came to the ROM to work in Ms. Cowan's laboratory for a period of three months. A staff member will be selected to work at the CCI for an equivalent period of time within the next two years.

Several other staff changes occurred. Ms. Cara Reeves, assistant textile conservator, left the Museum. The department welcomed Ms. Barbara Neatby, who took up the position of assistant documentation officer, vacated by Ms. Cara McEachern. A contract conservator position was opened to deal specifically with the arms and armour destined for the European Gallery. Ms. Helen Coxon has filled this position since September.

Progress was made in the acquisition of physical resources. The purchase of a polarizing light microscope, funded by a matching grant from the Upgrading and Equipment Assistance Program of the National Museums Corporation, Ottawa, was completed this year. The X-ray unit on long-term loan from the CCI was installed, and the radiography laboratory was made operational. The department acquired a second microcomputer system and began the process of capturing and organizing treatment information into a database structure to allow rapid retrieval of records and provide on-line access to the Conservation Information Network databases, through a planned direct connection with the Canadian Heritage Information Network (CHIN) mainframe computer in Ottawa. Both members of the documentation section took dBase III Plus courses through the ROM staff development program and attended the annual CHIN users' conference in Ottawa.

The efforts of the fifteen permanent staff and the contributions of the contract conservator, the eight interns (six full-time and two part-time), the five volunteers, and a part-time employee resulted in a year of high productivity. The conservators treated over 650 objects, of which approximately 425 were for inclusion in the new galleries. The other objects were associated with curatorial loans, Outreach Services projects, and temporary exhibitions. The loans-processing statistics also reflect the volume of activity in the department. The documentation section completed 3200 condition reports on artifacts on loan to or borrowed from the Museum and reviewed, with the conservators, 97 facilities reports. Research and analysis continued in such diverse areas as the testing of new materials to be used in exhibits, the use of various microclimate techniques, the effects of pesticides associated with fumigation on the collections, and other aspects of preventive conservation.

Department staff presented papers and participated in programs and committee work for various groups: the International Institute for Conservation (Canadian Group); the Toronto Area Conservation Group; the Field Museum of Natural History, Chicago; and the Society for the Preservation of Natural History Collections. They also gave papers at the ROM Research Colloquium, spoke to the FOROM group, presented twenty-five lectures in the Continuing Education series "Caring for Your Collectibles," participated in the March school break program, and gave tours or lectures to various general interest groups. Scholars and colleagues from New Zealand, Italy, Germany, Hong Kong, Britain, Switzerland, Israel, and across North America visited and consulted with the staff. The department also fulfilled its teaching obligations by accepting eight interns from a number of accredited institutions.

LABORATORY OF ANALYTICAL SYSTEMATICS

Kian E. Chua, Supervisor

Established in 1969 through a grant from the National Research Council of Canada, the Laboratory of Analytical Systematics is jointly sustained by the ROM and the Department of Zoology, University of Toronto. Given that the research efforts of the Museum's life sciences departments reflect a traditional and inevitable interest in the evolutionary rela-



Dr. Robert W. Murphy, associate curator, Department of Ichthyology and Herpetology, preparing a histological protein stain.

tionships of living and ancient species, the laboratory remains an important tool for ROM curators, zoology professors, and their graduate students.

Interest in the potential for the laboratory's contribution to projects in evolution and genealogical classification (taxonomy) has been stimulated by the recent availability of practical techniques for identifying genetic characteristics, which will enable the most precise measures of genetic variation. Such characteristics pertain to the composition of DNA, the molecular component of genes, which largely determines the structural and chemical traits comprising a given specimen. By probing the DNA for variation one is able to reduce ambiguities contained in information derived strictly from morphological (structural) traits, which are a composite of genetic, biochemical, and environmental interactions. A review of projects undertaken during the past year illustrates the evolution in methodology that the laboratory itself has undergone since its creation. It also presages an exciting era of discovery in which definitive genetic information can be expected to clarify much further the complex evolutionary relationships of species, subspecies, and populations of single species and to enhance the capability of recognizing signs of divergence (new species formation) in living populations.

Histology, the preparation of specimens primarily for microscopic examination, is the oldest set of techniques employed in the laboratory, and it augments the analyses of larger structural form carried out within curatorial departments. Recent histological projects include one by a herpetology graduate student involving the use of growth rings in sections of frog bone to derive a measure of age structure within frog populations. In another study, the examination of sections of marine worms contributed taxonomic information to ongoing curatorial work in the Department of Invertebrate Zoology.

Protein electrophoresis, a technique exploited by researchers since the 1960s, has been the predominent systematic tool of laboratory users for some years, because of the improvement in stastistical precision it provides by producing a measure of variation based on a single phenotypic (bodily) trait, namely a protein, which is the product of a single type of gene. In the past year, phylogenetic applications of electrophoresis in the laboratory occurred in studies of populations of bush lizards, salamanders, frogs, wood rats, shrews, mice, shorebirds, vireos, and meadowlarks. The method was also used to give an uncommon glimpse of the partial protein composition of a rare specimen of the evolutionarily interesting coelocanth acquired last year by the Department of Ichthyology and Herpetology.

As mentioned previously, the ultimate genetic distinctions will be made at the level of DNA. One kind of procedure for detecting polymorphisms in DNA is presently being used to assess variation in populations of goose species and subspecies in North America. It is expected that this and other techniques of molecular biology will come into routine use as the laboratory's users search for the most subtle and accurate indications of variation and for clues to the mechanisms by which such variations have evolved.

LIBRARY AND ARCHIVES

Julia Matthews, Head

The past year has been an exceedingly busy one for the department. Increases in workload were dramatic in many areas; for instance, the number of people coming to use the Library doubled. Most users arrive with a specific question in mind, and pursue an interest—say, in butterfly gardens—through monographs and journal articles, as well as contacts, like clubs and associations, that Library staff can provide. Some use the directories and catalogues in order to plan vacation itineraries. Many are professional researchers working in publishing or the media. A very large number of users are university students. The students eligible to borrow are those taught by cross-appointed curators and those in the Museum Studies program. Loans to this group doubled last year. By far the greatest number of loans in this "noncirculating" collection, however, are to staff. The total for the year was also a record at 4819, and 836 items were retrieved from departments for use in the Library or for interlibrary loans. The six library technician positions were reclassified to reflect the levels of responsibility involved.

The department was extremely fortunate in contract staff this year. For six months, it was able to hire Mr. Toomas Kirsi to work in Archives. He accessioned material that had accumulated, negotiated some microfilming projects, and, in general, gave potential users a taste of accessibility. Now, once again, access has had to be severely curtailed. Circumstances conspired to allow the Library to have Ms. Julia Webster, a former librarian, on Fridays throughout the year and full time at term's end. Her prior acquaintance with operations and clientele were a boon in the absence of Ms. Sharon Hick, the first librarian to go on sabbatical leave. Ms. Hick's research into the life and work of A. P. Coleman, first director of the Royal Ontario Museum of Geology, will be shared with the community next year.

Continuing and professional education are vital to effective staffing in this information society. All staff members made visits to other museums, libraries, and archives and reported on their impressions and findings. Formal courses in programming and subject analysis were supplemented by workshops and seminars. Mrs. Isabella Guthrie-McNaughton, librarian, attended a day-long session on CD-ROM technology with a teleconferenced component at Sheridan College of Applied Arts and Technology, Oakville. She contributed much useful documentation and many new ideas from her travels to university and museum libraries. Ms. Anne Federer, assistant librarian, who oversees the implementation of serials software, was the liaison with the Sydney Users' Group in Metropolitan Toronto, who have software similar to the Library's. She hosted a meeting of this group at the ROM, which included a visit to the special exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum.* The connection with this group of libraries overlaps slightly with the Library's membership in the University of Toronto's Council of Campus Libraries and the Ontario Government Libraries Council, but extends the the ROM's network to financial, medical, and professional association libraries. Mrs. Matthews attended a two-day workshop sponsored by the Special Library Association's business and finance division. She also made a panel presentation on job classification and pay equity for library technicians. Policy guidelines for the Library were submitted to senior management and preparations for a staff open house were started. Committees worked on circulation policy and a user's guide for staff.

Gifts from individual donors that strengthen the collections are much appreciated. This year, the largest donation in terms of volumes came from another library. The Legislative Library has been weeding its collections and has been generous to sister institutions. The ROM publicly acknowledges its share, which will be catalogued in due course. A further cooperative collections development initiative was joint consultation with the Geology Library at the University of Toronto, regarding strategies to cope with the high cost of journals.

At the very end of the year, the Library proudly took deliv-

ery of its first bibliographic database in the form of an optical disk, Cambridge Scientific Abstracts, *Life Sciences Collection*. In keeping with the Library's mandate, more databases will be acquired, to match needs within the ROM.

PREPARATORS DEPARTMENT
Vivian Peverley, Head

GALLERY DEVELOPMENT Although the department's activities over this past year did not include the production of a permanent gallery, a great amount of work was performed on designing and fabricating mounts and supports in preparation for the upcoming European and Egyptian and Nubian galleries. During the manufacture of these supports, a need was perceived for the protection of the artifacts from the metal mounts. The method employed to provide the necessary cushioning was a quick-drying liquid rubber compound, which proved ideal for the requirements. The production of steel forms for the European armour that will eventually be displayed in the permanent galleries necessitated the purchase of an arc welding machine and the training of a staff member in its operation.

TEMPORARY EXHIBITIONS During the year exhibitions were installed in the main building and the Sigmund Samuel Building. The department's year began at the Sigmund Samuel Building with the takedown of the exhibition *Discovery of the Titanic*. This was followed by the installation of *Posted to Canada: The Watercolours of George Russell Dartnell 1835–1844* and *Quebec Furniture and Paintings*. At the main building the department was involved in the work for such exhibitions as *Colourful Delights: Embroideries from Islamic Lands, A ROM Album, The Art of Xu Beihong, Eye of the Beholder: Objects for Personal Adornment, Patterns in Light: the John and Mary Jaremko Glass Collection, Ontario at Home: Two Hundred Years of Living, Power of the Press: Northern European Prints 1490–1700, The Art of Survival: Canadian Artists in Aid of Endangered Wildlife, The Gould Collection of Netsuke: Miniature Sculptures from Japan, Treasures of the Holy Land: Ancient Art from the Israel Museum, Beauties of the Coral Reef,* and *Blood from Stone: Making and Using Stone Tools in Prehistoric British Columbia*.

LOANS The increasing number of loan requests required new packing methods and crates for shipments. A total of some forty outgoing loans and sixteen incoming loans were processed.

PUBLIC SERVICE Once again the department participated in the Museum's presentation to the public during the March school break. The department's display involved findings on the shock-absorbing properties of styrofoam used to pack different types of artifacts for shipment. Mr. David Bush, preparator, demonstrated how a fresh egg dropped from a six-foot ladder onto a two-inch sheet of styrofoam would not break. He also demonstrated the design and fabrication of mounts made from different materials to support artifacts displayed in different attitudes.

Information was given to various institutions on the methods and materials used by the department. This group included the Nova Scotia Museum, Halifax; the Wellington County Museum, Fergus; the National Gallery, Ottawa; and the British Museum, London. A transport company wishing to enter the field of art handling and transportation also contacted the department.

PROFESSIONAL DEVELOPMENT Mr. Bush paid a professional visit to the Smithsonian Institution, Washington, D.C., to observe the methods and materials used in its shipments. He also attended a computer course as a possible aid to the documentation of packing and shipments for which he will eventually be responsible. Mr. Gerald O'Connor, preparator, received a certificate for the successful completion of an arc welding course.

REGISTRATION DEPARTMENT
Sonja Tanner-Kaplash, Registrar

Creating and maintaining the ROM's central registry of collections figure prominently in the mission statement of the Registration Department. To that end, projects were initiated to strengthen the integrity of the administrative database; when these projects are completed there will be full integration between the administrative database, controlled by the Registration Department, and various curatorial databases.

Throughout the fall and winter Mrs. Tanner-Kaplash continued research funded by a National Museums of Canada Fellowship, and Mr. Guy Mathias, associate registrar, served as acting registrar. In June the department bid a fond farewell to Mrs. Irene Green, who retired as departmental assistant after twelve years.

ACQUISITIONS AND RECORDS SECTION The ROM collections grew through purchases, bequests, excavations, and gifts in kind from 222 donors. A total of 362 accessioning transactions created over 4000 new records. Six major transactions were certified by the Canadian Cultural Property Export Review Board, and one purchase was supported by a major grant approved by the same body. Beginning in July 1987, an appraisal account was created to facilitate the acquisition of gifts. This section is headed by Ms. Sandra Kirkpatrick, acquisitions and records coordinator, who replaced Ms. Leigh O'Mara. Registration assistants in this section are Ms. Helen Chirnomas and Ms. Cecilia Hanna, with special project assistance from Ms. Sandra Bernaus and Ms. Barbara Neatby.

LOANS SECTION The section continued its conversion of computerized loans records to a more efficient electronics system with a new information management system for the Borrower Facilities Reports. Incoming special exhibition loans coordinated by this section included *Treasures of the Holy Land: Ancient Art from the Israel Museum* and *The Gould Collection of Netsuke: Miniature Sculptures from Japan*.

Loans transactions increased substantially this year. The ROM continued to borrow artifacts from institutions and private lenders for purposes of study and display. The Museum also lent artifacts to the Spanish National Commission for the Commemoration of the Quincentennial of the Discovery of America for the exhibition *El Ojo Del Totem* and to numerous museums in Canada and abroad. In September Ms. Cara McEachern joined the department as loans coordinator. She was assisted by Ms. Ronnie Burbank and Mr. Stephen Hum, registration assistants.

CUSTOMS AND SHIPPING In keeping with international trade obligations, Revenue Canada, Customs and Excise, implemented a new "harmonized" tariff classification system on 1 January 1988, and the classification of imports of artifacts, specimens, equipment, and merchandise for the Museum became more complex. In order to administer this new system, the section developed new databases on tariff classifications,

federal sales tax status, and rulings for imported goods.The section managed approximately 880 shipments during the year, which included preserved mongooses, an ancient Egyptian comb, a vacuum cleaner (for the European collections), and spacecraft models from the USSR for the Planetarium. Transportation and customs arrangements were made as well for a variety of transactions, such as the multivan shipment containing *Treasures of the Holy Land.*

Mr. Barry McQuade continued as customs and shipping coordinator, assisted by Mr. Hum.

PUBLIC SERVICE AND PUBLICATIONS The department continued its advisory services to various government and private agencies and organized various educational presentations, such as the Ontario Museum Association (OMA) certificate course in collection management and other provincial association education programs. The department welcomed Ms. Tracy Mallon as a summer intern from the Arts Administration Programme of the University of Toronto. Mrs. Tanner-Kaplash completed a successful term as president of the OMA.

DEVELOPMENT AND MEMBERSHIP DIVISION

Robert Howard, Assistant Director

In 1988 development at the ROM focused on the need to use recent success as a springboard for future growth. It is no secret that private sector or non-tax-based support will become increasingly more important to the Museum, if the ROM is to fully serve the people of the Province of Ontario, the country, and its many international friends.

The success and continuing support of the ongoing Galleries Campaign, along with the steady growth of the Future Fund Today—ROM Endowment, is a direct result of the leadership provided by the chairman and all those on the Board of Trustees and the increasing support from the staff of the Museum, who are following the example of Dr. T. Cuyler Young, Jr., director.

Corporate support for capital projects continued, as the ROM received greater levels of sponsorship than before for major exhibitions, programs, and various Museum initiatives. Special exhibitions contribute tremendously to the vitality of the ROM, and *Treasures of the Holy Land: Ancient Art from the Israel Museum* was made possible at the Museum only through the generous support of Andrea and Charles Bronfman, Sydney and Florence Cooper, Shirley and Eph Diamond, Sheila and Nahum Gelber, Sandra and Joseph Rotman, Joey and Toby Tanenbaum, the Mendelson Family Foundation, Arnon Development Corporation Ltd., Minto Construction Limited, and Olympia & York. We are particularly grateful to Sara Vered and Joe Rotman for their role in helping to bring this exhibition to the ROM. Magna International Canada Inc. provided the necessary sponsorship support for the enormously successful exhibition *Eye of the Beholder: Objects for Personal Adornment.* Ault Foods Limited and Lloyd's Bank Canada maintained their important role as continuing sponsors of programs and publications alike.

In addition to these initiatives, the ROM received corporate support for fundraising events. The Ford Motor Company of Canada once again supported the very successful partnership between the ROM and the Metropolitan Toronto Hockey League, which assists both the Museum and minor league hockey. M. K. Wong & Associates and Maclean Hunter Limited provided sponsorship that enabled all of the $320 000 raised in the "Art for the Birds" auction to directly benefit the development of the ornithology gallery. Sotheby's (Canada) Inc. was responsible for the leadership and direction in this auction and generously donated time and effort to the cause.

An important part of increased development funding was provided by the members of the Museum. They have now contributed in excess of $1 million to the gallery efforts. Members have also supported the Future Fund Today—ROM Endowment and the recent acquisition of outstanding Byzantine jewellery.

In this past year the Members' Volunteer Committee continued its support of the Museum's development objectives. Planning is already under way for a major event early in 1989. The division receives excellent assistance from the committee for all of its events, functions, and donor groups on an ongoing basis.

While it is clear that the support in all areas is an indication of the level of respect for the Museum, its role, and its performance, the ROM would be making a mistake of immense proportions if it did not recognize the role of many individuals who have supplied leadership, creativity, support, and long hours in the fulfilment of its development needs. In April 1988 the Museum paid tribute to Doug Creighton, president and chief executive officer of the Toronto Sun Publishing Corporation; Frank Stronach, chairman and chief executive officer of Magna International Canada Inc.; and Peter Widdrington, chairman and chief executive officer of John Labatt Limited, for their ongoing support of the Museum, by awarding them the distinguished ROM Development Award. The men and the companies they lead have all provided capital funds for building, as well as additional support through sponsorships of important activities.

As I mentioned previously, the success of the development operation could not be achieved without the leadership and assistance of many trustees and members of various committees. I am especially thankful for the ongoing assistance provided by Joan Thompson, Nicky Eaton, Wendy Rebanks, Marion Bradshaw, and Sally Brenzel, all of whom are a valuable resource for the Museum and truly a pleasure to work with.

MEMBERSHIP SERVICES

Elizabeth Barrett, Head

The year 1987/1988 was one of new direction and new initiatives for Membership Services. The transfer of the department from the Public Programs Division to the Development and Membership Division signalled more than just internal reorganization. It revealed the institution's identification of members as among the Museum's most important constituents: individuals who have made a commitment to the ROM's offerings and ideals, its excellence and its develop-



The new members' reception held in June, which featured displays of ROM artifacts and specimens. (Photo: Courtesy of Cher-Anne Nash)

ment as Canada's international museum. Members and donors are a vital part of the ROM family, and the communications, programs, and services provided to meet their interests and needs are integrated and consolidated within the Development and Membership Division.

The ROM's membership base grew steadily, reaching more than 22 000 individuals enrolled in over 14 000 memberships. The drive to expand the membership base called for a comprehensive marketing effort on various fronts. Physical changes in the Rotunda created a new and inviting Membership Desk, the primary point of sale for ROM memberships, operated by department staff. Several offsite ventures in Toronto included ROM Membership presence at the Ontario Home Show, the Canadian National Sportsmen's Shows, and the Connoisseur Show. A new membership brochure, distributed to individuals at the Membership Desk and at various locations and events throughout the Museum, introduced the ROM's many attractions and emphasized the benefits of membership. A direct-mail campaign and a new telemarketing program successfully focused the department's recruitment efforts and brought in a host of new ROM members.

Members' Previews and New Members' Receptions proved popular both as social gatherings and as introductions to the ROM's offerings. An advance viewing for members took place in October for the concurrent exhibitions *Ontario at Home: Two Hundred Years of Living* and *Patterns in Light: The John and Mary Yaremko Glass Collection.* The January opening of the Bat Cave and the Hardwood Forest mammalogy galleries drew large and enthusiastic crowds for a preview with a special family appeal. The stunning exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum* brought members together for two days in May. New members gathered three times: in October, at the Sigmund Samuel Building; in February, for a tour of *The Gould Collection of Netsuke: Miniature Sculptures from Japan;* and in June, to see a selection of new acquisitions, explained by curators from the Greek and Roman Department and the Departments of Ethnology, Invertebrate Zoology, and Invertebrate Palaeontology.

Membership benefits increased this year with free admission to the George R. Gardiner Museum of Ceramic Art, Toronto, resulting from the association of the ROM and the Gardiner. Another benefit opportunity came about with the birth of special interest groups, open exclusively to ROM members, in the areas of anthropology, Islamic art, shells, library and archives, and 20th-century design. *Atria,* the newsletter for ROM members, showed increased coverage of activities for members and donors, with a new expanded design planned for the 1988/1989 year. Negotiations were undertaken to place new food service operators in the Members' Lounge, in an effort to provide an even more appealing private dining room in the heart of the city, reserved for members of the ROM family and their guests.

The Membership Services operations this past year have enjoyed the guidance of enthusiastic and interested supporters — the Board of Trustees Membership Resource Group, chaired by Mrs. Nicole C. Eaton; the Members' Volunteer Committee; and the ROM Volunteers, who have welcomed and hosted thousands of members so admirably and tirelessly.

EXHIBITS DIVISION

Louis D. Levine, Associate Director

Restructuring Early in the fiscal year, the senior management of the Museum was restructured, and the position of associate director, galleries, which had been established only months before, was renamed associate director, exhibits. With this renaming came a redefinition of the responsibilities of the position. In addition to the Gallery Development Project, the Exhibitions Program was made part of the job, in recognition of the intimate link between all exhibits, long and short term, at the Museum. The Exhibitions Department thus joined the Exhibits Division. Exhibit Design Services, the department that provides expertise in all manner of design, in interpretive planning, and in the fabrication and upkeep of all exhibits at the ROM, was added as well to the division.

Gallery Development The Gallery Development Project was the first priority of the Museum, and as such the first priority of the Exhibits Division during this fiscal year. Following the recommendations of the Gallery Development Commission, whose report had been submitted to the director and the Board of Trustees, a new plan for gallery development was evolved, and a new budget struck. The plan, which foresees the completion of the remainder of the galleries over the next five to eight years, with the majority completed sooner rather than later in that period, was approved by the Board at its March meeting. The Board also approved a minimum budget of $42.5 million for the entire project from start to finish. It remains a most pleasant duty to acknowledge the constant support and advice extended to me by the members of the Gallery Development Committee and its chairman, Mr. D. Miles McMenemy, in the formation of this plan. It would have been a far poorer document without them.

The new plan also called for a concentration of the existing resources on a smaller number of projects and a rationalization of the areas which were to be developed first. As a result, the number of gallery projects underway was reduced, with some projects put on hold until resources could be directed towards carrying them forward. By the end of the fiscal year, six gallery projects were active: the Bat Cave/Hardwood Forest, where a team was making adjustments to the gallery which had opened in January; the McLaughlin Earth Sciences Galleries; the northern tier of the Samuel European Galleries; the Canadian National Sportsmen Shows Gallery of Birds; the Egypt/Nubia Galleries; and the Ethnology Galleries.

Exhibitions The Exhibitions Program continued to function smoothly, and its activities are reported below. Of note was the creation of the Board's Exhibitions Subcommittee, under the chairmanship of Mrs. E. A. Dunlop, to oversee policy development and monitor the program in this vital area of the Museum's function.

Reorganization The establishment of the Exhibits Division has allowed a reorganization of the manner in which exhibits at the Museum are managed. Each exhibit is now treated as an individual project, and the beginnings of a project management system have been put in place. These include the introduction of project coordinators for all projects, with special responsibilities for budjets and schedules; the complete revamping of the chart of accounts and the reporting system for project accounts; a chartering system for teams working on projects; and a professional development program for all staff working on exhibits at the ROM. The result of these changes is that there is now a standard format for reporting exhibits (galleries, temporary exhibitions, and special exhibitions) to senior management and the Board, and staff will have the opportunity to benefit from successes and learn from failures in the design and execution of future exhibits.

EXHIBIT DESIGN SERVICES

Lorne E. Render, Head

Restructuring The establishment of the Exhibits Division resulted in a revision of the mandate of Exhibit Design Services. The department is now able to concentrate more fully on the provision of the skills required for the creation of successful exhibits. As a consequence, Exhibit Design Services undertook a major reorganization of its structure. Excluding administration, the department now comprises four sections, each one broadly representing one of the spheres of work requisite for the development of most kinds of exhibits: Interpretive Planning, Design, Art Production, and Exhibit Production. Redistribution of responsibilities led to the establishment of two new positions: chief interpretive planner and chief designer. Exhibit Design Services also started a large-scale reorganization and renovation of its space and facilities.

Professional Development This year two major steps were taken to enhance the department's ability to provide design services of high calibre. First, after consultation with staff, an Exhibit Design Services committee prepared departmental policy and guidelines for professional development, complete with standard procedures governing applications for support. In taking advantage of such opportunities, staff in all sections of Exhibit Design Services undertook a wide range of activities: lectures, seminars, conferences, course work, field work, retreats, competitions, and various exhibitions and trade shows. Second, approval was granted for the building and staffing of an exhibits resource centre within the department. Part of the departmental renovation, the centre will be an important resource for planning galleries and exhibitions.

The computerization of many departmental functions created a new training priority. Departmental accounting services have already been computerized, and the graphic designers began to learn programs for computer-assisted graphic design and typesetting.

Galleries and Exhibitions Exhibit planning and installation consumes most of the energy of the department. Staff expertise was called upon throughout the year for projects ranging from small, simple case updating to large, complex gallery planning and production. While the diverse extent of projects is mentioned in other Exhibit Division reports, it must be said that the participation, involvement, and leadership of Exhibit Design Services staff in project teams was key to the continued development of exciting, informative, and innovative galleries and exhibitions.

Other Operations A large proportion of the work of the photographers consists of documenting the collections and

shooting publicity photographs. Over the past year they processed 13 000 black and white prints, 12 500 transparencies, and 1000 colour prints. The staff of Exhibit Design Services also maintained the displays in the more than 100 000 square feet of galleries now open; this is no small undertaking. Orientation signage is another important responsibility of the department. Significant this year were the implementation of a reusable signage system for the March school break and the design and prototyping of an interim signage system for the Museum as a whole.

As part of the ROM's response to the Province of Ontario's French Language Services Act, the department used temporary exhibitions as a testing ground for bilingual exhibits. Mary Jones was hired as a consultant to advise the ROM on the most effective means of providing services to francophone visitors to the exhibits.

Staff engaged in numerous professional "outreach" activities: organizing and hosting visits of experts and students to the Museum, teaching courses, presenting papers at conferences, and serving on committees in various educational and museological institutions.

Finally, on a personal note, the department congratulates Mr. Peter Buerschaper, superviser, art services, on celebrating twenty-five years of employment with the ROM and wishes every happiness to Mr. Anker Odum, artist, who retired this year.

EXHIBITIONS DEPARTMENT
Margo Welch, Head

This year was one of the busiest and most exciting since the Museum's reopening. A total of fourteen exhibitions were on display, eight of which the ROM organized and produced. All five major exhibitions were produced by teams of ROM staff working intensively for a minimum of one year in advance of the openings. The achievements of the year are a credit to the expertise of the more than twenty departments involved.

The great success of the ROM's 75th Anniversary events was demonstrated by the enthusiastic response from visitors. *Eye of the Beholder: Objects for Personal Adornment* (11 April to 30 August 1987), sponsored by Magna International Inc., attracted a total of 234 137 visitors to the main building, and *Discovery of the Titanic* (7 February to 7 September 1987), sponsored by the Toronto Sun, attracted record crowds to the Sigmund Samuel Building. *A ROM Album* (23 May to 19 July 1987) intrigued visitors with a glimpse into the Museum's past.

A number of major exhibitions opened this year. *Patterns in Light: The John and Mary Yaremko Glass Collection* and *Ontario at Home: Two Hundred Years of Living* (31 October 1987 to 3 January 1988) were shown concurrently in Garfield Weston Exhibition Hall. *Patterns in Light* displayed a portion of the eleven hundred pieces of glass donated to the ROM in 1981 by John and Mary Yaremko. *The Gould Collection of Netsuke: Miniature Sculptures from Japan* (20 February to 23 October 1988) comprised 212 exquisite Japanese carvings selected from the outstanding private collection of Mr. Irving Gould.

The year ended on a very high note with the opening of *Treasures of the Holy Land: Ancient Art from the Israel Museum* (9 May to 5 September 1988). The ROM was honoured to be the only Canadian venue for this extraordinary exhibition, sponsored by the Canadian Friends of the Israel Museum, along with Andrea and Charles Bronfman, Sydney and Florence Cooper, Shirley and Eph Diamond, Sheila and Nahum Gelber, Sandra and Joseph Rotman, Joey and Toby Tanenbaum, the Mendelson Family Foundation, Arnon Development Corporation Ltd., Minto Construction Limited, and Olympia & York.

Many temporary exhibitions were featured. *The Art of Xu Beihong* (15 August to 27 September 1987) was organized by



Ram carrying jars, Chalcolithic period, pottery. From the exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum.*

the Art Gallery of Greater Victoria in cooperation with the Xu Beihong Memorial Museum, China. Assistance was provided by the Government of Canada, Department of Communications and the Canada Council. *Posted to Canada: The Watercolours of George Russell Dartnell 1835–1844* (26 September 1987 to 28 February 1988) brought together material from private and public collections for display at the Sigmund Samuel Building. *Power of the Press: Northern European Prints 1490–1700* (14 November 1987 to 17 January 1988) was drawn from the European Department's prints and drawings collection. A small exhibit entitled *Wildlife '87* (17 August to 17 September 1987) led to the ROM's participation in *The Art of Survival: Canadian Artists in Aid of Endangered Wildlife* (12 December 1987 to 21 February 1988). Both exhibits were organized by Wildlife '87. *Beauties of the Coral Reef* (11 June to 28 August 1987) was organized and circulated by the Smithsonian Institution Traveling Exhibition Service, Washington, D.C. *Blood from Stone: Making and Using Stone Tools in Prehistoric British Columbia* (18 June to 1 August 1988) was organized and produced by the University of British Columbia Museum of Anthropology, Vancouver.

The 1987/1988 exhibitions program was greatly assisted by the support received from the Ontario Ministry of Culture and Communications; the Insurance Program for Travelling Exhibitions, Department of Communications, Government of Canada; and the Promotion of Official Languages Program, Department of the Secretary of State of Canada.

Special thanks are due to Ms. Loredana Drusian, exhibitions assistant, for her continued dedication and hard work.

HUMAN RESOURCES DIVISION

Nancy Hood, Assistant Director

The Personnel Department provides services for the entire Museum community in the areas of recruitment; wage, salary, and benefits administration; records management; and staff development. The department is also responsible for labour relations, including collective bargaining, labour-management relations, and the administration of the four collective agreements in place at the Museum.

Major activities of the department this year included the preparation of a draft strategic plan, which, when considered and endorsed by the Board of Trustees, will establish a direction and plan for human resources at the ROM for the next five years. The final implementation of the Job Evaluation and Salary Review Committee Report, which covers all employees in the OPSEU bargaining unit, represented an important accomplishment. The report's implementation not only established the basis for the future development of the Museum's pay equity plan, but also demonstrated concretely the ROM's continuing commitment to pay fair and equitable salaries to its employees. The department also played a significant role in the development of policies and procedures necessary to ensure that the Museum meets its obligations under the Pay Equity Act, the Pension Benefits Act, and the French Language Services Act.

As part of a staff development initiative, the department arranged concentrated training opportunities for ROM employees in the areas of computer skills upgrading, management training, and French language skill development.

Finally, it is important to note that as part of the regular activities of the department, the staff processed approximately 8500 applications for employment, including a significant number of applications for the Summer Experience '88, Summer Employment Experience Development, and Social Service Employment programs. These government-supported programs are designed to provide employment opportunities and experience for students and other targeted groups. The Personnel Department looks forward to another active and exciting year in 1988/1989.

PUBLIC PROGRAMS DIVISION

Ken MacKeracher, Associate Director

The public's awareness of and enthusiasm for the wide range of programming surrounding the 75th Anniversary celebration of the year before carried forward into this year, resulting in yet another attendance record: 1 125 585 visitors came to the main museum buildings and the McLaughlin Planetarium. Successful family and weekend programs, the opening of galleries, a new format for children's creative programs, a spectrum of topical temporary exhibitions both large and small, docent tours, the refurbished Discovery Gallery, new planetarium shows, guided and unconducted school visits, expanded holiday season programs, and an enlightening series of Continuing Education offerings all saw an appreciable rise in participant numbers. Outreach Services, with its mix of programs, resource boxes, and exhibits, together with the two special travelling exhibitions, *Ontario at Home: Two Hundred Years of Living* and *Korea: Land of the Morning Calm,* attracted approximately 600 000 people at venues throughout Ontario and Canada. The generous support of many corporate sponsors made it possible to present a number of the special public programs. The division's wide range of programming is discussed in greater detail in the departmental reports that follow.

The preparation of a submission on programming for the public, to be included in the Museum's overall strategic plan for the next decade, was a major undertaking this past year. A contribution was made as well to the transition team for the recent merger with the George R. Gardiner Museum of Ceramic Art, Toronto, on how the division's resources would assist in ensuring the success of this partnership.

Under the able presidency of Mrs. Barbara (R. W.) Chisholm, the Members' Volunteer Committee undertook a further streamlining of responsibility assignments, which assisted greatly in that group's involvement in the interdepartment program-planning process. A joint volunteer-staff

working group's comprehensive manual on volunteer activities at the ROM was well received internally and is in demand by sister cultural institutions.

A federal government New Horizon's grant provided the Museum's program for senior and retired citizens with greater stability and the potential for offering a wider range of activities. Pilot multicultural programs and joint initiatives with a variety of cultural communities significantly enhanced the program offerings and created many new partnerships for the Museum. The ROM is now in its second year of a multicultural development grant, funded by the provincial government. The McLaughlin Planetarium was able to obtain three models of Soviet spacecraft for its displays. Copublishing became an important new venture of Publication Services; it promises to be one that will involve many Museum departments and be a potential new source of revenue generation.

Renovations to the shops, cooperative initiatives, and a three-year business plan highlighted the Shops operation, now run by Ms. Leigh Stevenson, who replaced Ms. Sophia Stepovy as head during the year. Membership Services was transferred to the newly constituted Development and Membership Division part way through this past year.

Changes in the format of all print advertising and extensive media relations contacts were positively reflected in the increase in attendance and on visitor comment cards. These improvements were made possible by a special marketing initiative grant from the Ontario Ministry of Culture and Communications. The visitor services staff in the main building moved into their new reception desks in the redecorated Rotunda. The provision of information and admission processing showed a noteworthy improvement. A new museum box office was completed, which will provide for an expansion of the ROM Reproductions Shop and improve the visitor traffic flow at the main entrance.

The Museum Assistance Program of the federal Department of Communications provided grants in support of conservation, collections documentation, the circulation of *Ontario at Home,* and Outreach Services public programming activities. Five positions in various curatorial and public programs departments were funded through a grant provided by the Ontario Ministry of Community and Social Services.

EDUCATION SERVICES

Ronald Miles, Head

Growth by all measurable criteria was the single dominant factor of accomplishment this year. Each unit fulfilled its responsibilities and contributed to an increase of 32 per cent in revenue production. Attendance for all programs totalled 176 120, up 8.6 per cent over last year.

SCHOOL VISITS The six full-time teachers and the one much-appreciated secondment from the Metropolitan Toronto School Board were joined by four permanent part-time staff, including one bilingual teacher, during the school year. Ten casual staff were hired as required. The demand from schools for traditional history and science curriculum-related topics grew, particularly at the secondary school level. Program adaptations were made for English as a second language groups, and for groups with learning or physical disabilities. Four topics were innovated as a complement to the Ontario Ministry of Education guidelines in its course development of the arts and communication.

Although the exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum* opened relatively late in the school year, the attendance of 4362 in school groups indicated excellent interest. Total school visit attendance was 141 396, an increase of 7.3 per cent over last year — despite the loss of attendance from September to November during a labour dispute within the Metropolitan Toronto school boards.



A fossil-finding expedition to learn about the tools and techniques of ROM palaeontologists, part of the Creative Arts summer program for children.

Creative Arts Traditional Saturday Morning Club activities provided museologically based programs for children. New programs included child-centred family workshops, art programs comprised of pairs made up of a parent and a child from three to five years in age. Young teenagers worked with clay, studied biology or astronomy, and attended a ROM laboratories program after school. The six-week summer program in July and August operated at full capacity. Total attendance for childrens' programs was 16 168, an increase of 7.3 per cent. The adult art programs were extraordinarily successful, drawing 5178 participants, an unprecedented increase of 69.5 per cent.

Continuing Education This long-established program for the Museum's adult public experienced steady growth in attendance, quality, and appeal. Highlights during the year included lectures related to *Treasures of the Holy Land* by international scholars; field trips with curators to study wildflowers, rock formations, and fossils; stargazing workshops; and courses on the culture and the wines of Germany and Italy. Complementary and collaborative programs were developed with other institutions in Toronto, such as George Brown College of Applied Arts and Technology and the University of Toronto School of Continuing Studies. Of tremendous advantage to the program was the sponsorship of Maclean Hunter Limited in printing this year's three issues of the much-improved calendar of programs and events. This generous support is gratefully acknowledged. Financial support from the Canadian Museums Association Bursary Program enabled the manager of the section to undertake a two-week study tour of museum education in England. Total attendance was 8968, an increase of 8.8 per cent.

Discovery Gallery A number of attractive displays based on museological precepts were prepared. The Discovery Gallery coordinator produced a comprehensive study of the gallery's philosophy, patterns, and uses, for future publication as part of the ROM museological series. She has made an outstanding contribution to the development and growth of the gallery during her tenure, and the department wishes her well in her new career in Exhibit Design Services. Attendance totalled 5218 for school groups and 37 494 for the general public.

Teachers Workshops and The Forom Program These ongoing services of the Education Services teaching staff attracted a growing audience. The FOROM program for seniors drew 3724 people and the Teachers Workshops, 686.

Acknowledgements The effective organization and operation of the Education programs depends on the assistance of volunteers and students in the Ontario Co-operative Education program. Their dedication is much appreciated.

THE McLAUGHLIN PLANETARIUM
Thomas R. Clarke, Head

Star Theatre Programs *Public Shows:* Six programs were presented, including the three new productions: "Signs from the Sky: The Puzzle of Astrology," "SUPERNOVA!", "Planets, Stars, and Galaxies," "Mars: The Journey Begins," "The Christmas Star," and "Star Talk." *School Shows:* Six different curriculum-related school shows were available during the year for children in kindergarten to grade two and grades three to four, five to six, seven to ten, and ten to twelve. *Alternative Programming:* "Laser Genesis" continued to the end of 1987 for a strong nine month run. In January 1988 it was supplemented by "Laser Floyd," an ever popular rerun, and replaced a month later by "Laser Sixties."

Attendance Public show attendance increased 4.2 per cent to 132 617 for 975 shows. School shows declined 1.9 per cent to 53 378 for 316 shows. Laser shows dropped 13.0 per cent from last years recent high to 93 672 for 455 shows. Total star theatre attendance was 288 914 — down 3.2 per cent. The planetarium, however, did pass the 5-million mark in total attendance since opening in 1968.

Acquisitions In early September 1987 Dr. Clarke attended the Ninth International Planetarium Directors Congress in Moscow, where he made contact with manufacturers of Soviet spacecraft models. As a result, the planetarium was able to purchase from its McLaughlin endowment funds three exquisitely built models: *Fobos*, a robot probe on its way to Mars; *Salyut 6*, a Soviet orbiting space station; and *Vostok*, the first manned orbital spacecraft. *Fobos* is now on temporary display in the Astrocentre. In March, with the assistance of Dr. Peter H. von Bitter, curator in charge, Department of Invertebrate Palaeontology, and Dr. Lisa Golembek, curator, West Asian Department, a successful bid was made at Christie's of London for a North African astrolabe made in 1845 for use in a mosque. Although of recent vintage as astrolabes go, it is the first Islamic astrolabe that the ROM has acquired, and it will be useful for teaching and display purposes.

Improvements and Technical Development Steps were initiated to upgrade the theatre automation to more reliable AT computers. A two-year program of sound-studio upgrades began with the purchase of a new sound-mixing board, a tape deck, and sound effects equipment. A compact disk was installed in the star theatre for entrance music.

Technical Support to Galleries and Departments Planetarium technical staff assisted in the installation and commissioning of the Bat Cave. As the year ended, final work was in progress on the conversion of the Dinosaur Gallery audio-visual units to bilingual videodisk units. As well as providing regular maintenance to gallery and exhibition audio-visual equipment, the planetarium shop made loans to other departments of 111 items of equipment including tools, television monitors, videocassette recorders, slide projectors, audio-visual control equipment, tape decks, videodisk players, and movie projectors.

Teaching and Lecturing Twelve special lecture demonstrations were given to a total of 1506 postsecondary students. The star theatre was also used for courses and demonstrations to special groups, including Museum Continuing Education and Creative Arts on 48 occasions. A total of 22 early evening star talks drew 1561 Cubs, Scouts, and Guides, and 20 stargazing workshops were provided to 876 participants. Mr. Ian McGregor, producer, conducted three multisession courses for 190 registrants and also organized a three-part lecture series on Supernova 1987A.

Other Public Service The astronomical information line continued to serve about 1000 callers a month, with about 36 messages over the year. Staff gave 6 lectures, participated at 19 media events, and presented approximately 170 documented responses for assistance on a variety of astronomical matters. Fourteen slide or visual loans of 249 items were made.

MEMBERS' VOLUNTEER COMMITTEE
Barbara Chisholm, President

New initiatives, changing perspectives, and closer integration with other departments involved in public programs marked the activities of the Members' Volunteer Committee this year.

In response to the Museum's French language initiative, the Docent Committee undertook a training program for French speaking tour guides, and weekly tours in French will begin in October 1988. The committee also organized bimonthly tours for the visually handicapped. The 52 docents and 10 ROM Guides gave 1826 tours to 34 450 people during the year, and the increased demand for special group tours raised $9200. The popular luncheon/tour series at the Sigmund Samuel Building and the program "Coffee with the Curators" were supplemented by a successful evening series, "Cocktails with the Curators."

The MVC travel program attracted over 300 participants to World Civilization Tours to Louisbourg, Berlin, the Dordogne, Russia, China, and the Queen Charlotte Islands. The short Getaway trips visited Corning, New York City, Philadelphia, and Ottawa. These two programs generated approximately $32 000 in donations to the Future Fund Today — ROM Endowment. The ROMBus Committee conducted day trips, and over 1000 people followed the blue umbrellas of the intrepid ROMWalkers during their twice-weekly historic summer walks.

ROMFocus, having added ROMTalk's highlights of Museum activities to its program, gave 43 presentations to 1651 people from September through June. After only one year of operation, the ROM Reproductions Shop established a strong financial base and was able to offer 130 different reproductions to the public.

MVC executive participation on panels for the Ontario Government's Interaction '88 conference and the Ontario Museum Association conference complemented an increased emphasis on staff-volunteer relations within the Museum. A volunteer manual, describing the rights and responsibilities of volunteers, was distributed to the 350 ROM Volunteers. These volunteers fulfilled a variety of placement requests, working anywhere from major exhibitions to curatorial departments to the Board Office. Senior management recognized their contributions with the gift of a refrigerator for their meeting room. Further recognition for long-term volunteers will come with the newly established service awards.

Networking continued with other Allied Arts groups within the Toronto area and with other North American museums at conferences in Richmond, Virginia, and Nashville, Tennessee. To facilitate event planning in the Metropolitan Toronto area, the MVC undertook to create a calendar listing Allied Arts and other volunteer-group activities.

At the 31st annual meeting on 1 June, a cheque for $43 000 was presented to the chairman of the Board of Trustees for the Future Fund Today.

Bishop White Committee The exhibition *The Gould Collection of Netsuke: Miniature Sculptures from Japan* provided a focal point for the committee's fundraising efforts on behalf of the Far Eastern Department. Lectures, receptions, and the annual Sai Woo Luncheon attracted record numbers. Despite the October stock market crisis, the Far Eastern Endowment Fund was valued in excess of $500 000 at the end of April. The committee gave $7000 to the Far Eastern Library and $1000 to the Far Eastern Department.

Textile Endowment Fund Committee In support of the Textile Department, the committee sponsored a lecture on Islamic embroideries by Miss Louise W. Mackie, curator, Textile Department; organized the symposium "Textiles as Fine Art," with keynote speaker Jean Michel Tuscherer, from the Museum of Fine Arts, Boston; and arranged a bus trip to visit textile treasures in Toronto churches. The raffle of the committee's special project, a needlepoint rug entitled *Canadian Fruits and Wildflowers,* raised $6000, which pushed the committee's fund over the $100 000 mark. A 19th-century Ikat sash and a Renfrew County coverlet were presented to the Textile Department as well.



Peter Cotton, shop designer, and Barbara Roberton, MVC jewellery head, in the ROM Reproductions Shop.

OUTREACH SERVICES
David A. Young, Head

The department's travelling exhibits, museumobile, school services, and speakers' bureau served a total of 577 026 people. Of these, 474 338 were residents of Ontario and 102 688 were residents of other Canadian provinces.

The major project was *Ontario at Home: Two Hundred Years of Living,* the largest travelling exhibit ever produced by the department. It was shown first in the Garfield Weston Exhibition Hall from 31 October 1987 to 3 January 1988 and then began a national tour at the Royal British Columbia Museum, Vancouver, in February. Funding for this exhibition was provided by the Ontario Heritage Foundation and the Museum Assistance Program of Communications Canada.

In January 1988 work finished on the travelling exhibition *Korea: Land of the Morning Calm.* The Korean community in Toronto provided a large portion of the artifacts featured in this show. On 28 January a reception for the Korean community was held at the ROM to celebrate the completion of this important exhibition. The Korean ambassador, Mr. Jae Won Roh, was one of the many dignitaries who officiated at the reception. The exhibition opened at the Kamloops Art Gallery in British Columbia on 11 February 1988.

The exhibition *Discovery of the Titanic,* shown at the Sigmund Samuel Building last year, was adapted for travel. In September it opened at the Marine Museum of the Great Lakes in Kingston.

Several new school programs were produced: eight resource boxes on Japan, three on skulls, two on snakes, and two on seeds. *SkyShow 1987* was the first bilingual edition of a new series of SkyShow packages on the Solar System. For the first time, Publication Services undertook the promotion, publicity, and sales of the SkyShow package. The past year was in many respects one of the most productive in the department's history.

The work of the department on the coordination of Museum-wide French language services took a quantum leap forward during the past year. A grant application to the Province of Ontario for funding for the first year of a three-year program to implement the French Language Services Act, 1986, brought in $395 500. A grant application to the Secretary of State of Canada generated an additional $300 000. These funds were distributed to departments throughout the Museum to support a variety of projects, from research on the best methods for providing French language services in galleries, to the conversion of the Planetarium Star Theatre, so that star shows can be enjoyed by francophones as well as anglophones.

Ms. Brenda Reid, multicultural projects officer, worked with community groups and Museum staff to devise programs that better reflect the needs and interests of a culturally diverse audience. Five programs were developed to reinforce the theme of cultural diversity in the exhibition *Ontario at Home,* and several projects were started to highlight the cultures of target communities, through regular monthly programs and special month-long events. Ms. Reid strove to improve the access of cultural communities to regular ROM programs and services. For example, she acquired $20 000 from the Ontario Ministry of Culture and Communications for audience research on the Chinese community and initiated a project to develop cross-cultural learning resources for schools across Ontario. She helped promote the exhibitions *The Art of Xu Beihong* and *Treasures of the Holy Land: Ancient Art from the Israel Museum* and the Soviet film series to specific community groups. She also coordinated a membership drive with five University of Toronto colleges during their orientation week. In order to give Museum staff information on work with a culturally diverse audience, she distributed a document outlining current statistical information on the ethnocultural composition of the province and provided training in intercultural communication.

PROGRAMS AND PUBLIC RELATIONS
Eleanor R. Goldhar, Head

The department exceeded its objectives this year because of its talented, dedicated, and hardworking staff. After the resignation of Ruth Weinstock, Diane Kenyon, senior publicist, was acting manager, publicity, until October 1987, when she and Deborah Westphal were appointed comanagers of publicity, a job-sharing situation that is a progressive first for the Museum. Trilby Bittle, senior publicist, was hired in January 1988.

Despite these changes in the Publicity Unit, major campaigns were conducted with great success for the new Bat Cave and Hardwood Forest galleries and this year's special exhibitions. Strong contacts were made with the new daily *Financial Post,* and colour feature articles on the exhibition *Treasures of the Holy Land: Ancient Art from the Israel Museum* appeared in no fewer than eight major publications, including *Maclean's.* For the first time, a yearly listing of major Museum events was sent to publications around the world. The response was very encouraging, and production began on the 1988/1989 *Season's Preview,* which will be distributed to this list and a new, highly researched and targeted travel media list. The announcements of the George R. Gardiner Museum merger, the "Art for the Birds" fundraising auction, and the Canadian National Sportsmen's Shows $1 million gift garnered much publicity.

The Programs Unit increased its offerings to a record 795 public events for 107 780 Museum visitors and was also responsible for the successful coordination of 1334 internal Museum bookings through the space reservation and production coordination systems. Making extensive use of community science-related resources, the unit produced intensive programs for the Bat Cave and the Hardwood Forest galleries. A new family learning initiative, entitled "Spring Into Nature," premiered as well. Exhibitions were the focus of twenty per cent of the programs. The unit participated in city-wide festivals, such as the Festival of Festivals (film), the Grierson Festival (film), National Film Board of Canada premieres and the Canadian Children's Book Festival. The ROM Rep Cinema feature-length film program surpassed previous annual attendance statistics with 9000 patrons; especially popular was the series "Classics of the Soviet Cinema." The March school break, sponsored again by Ault Foods Limited and involving over 400 staff and volunteers from almost every Museum department, attracted over 68 000 happy participants. "Connecting," the program for working singles, reaffirmed its popularity with sell-out crowds and positive attention in the media. With the support of the Museum, the ROM Seniors Club, a committee of volunteers, applied successfully for an eighteen-month development grant through the New Horizon program.

The Marketing Unit developed a series of successful campaigns for special exhibitions, which resulted in record attendance figures. As part of its ongoing activities, the unit conducted research surveys on marketing and visitor issues to obtain precise data for future marketing and promotional campaigns. Over 2 million print pieces were produced in support of programs, exhibitions, tourism groups, and general visitors. Consolidation of design in advertising and print materials was initiated in order to increase the impact of the Museum message. The tourism marketing strategy resulted in

continued growth of the tourist audience sector. Group sales demonstrated significant increases in advance bookings for exhibitions, with over 10 000 tickets to *Treasures of the Holy Land* sold prior to the opening. For the second consecutive year, the ROM participated in "Toronto for the Arts," a major marketing project promoting Toronto as a cultural tourism destination. The project involved a campaign reaching local, national, and United States audiences through radio, newspaper, and direct mail.

The Marketing Unit successfully integrated the marketing and visitor services needs of the Gardiner Museum into its operation. In conjunction with the ongoing promotion of the McLaughlin Planetarium and the Sigmund Samuel Building, the unit expanded its reach to include a wider and more varied audience through these new initiatives.

The Visitor Services Unit improved its effectiveness in providing quality interaction with the public. Staff were trained through the Ontario Ministry of Tourism and Recreation Hospitality Training program and additional in-house training was implemented for major events such as the March school break and special exhibitions.

PUBLICATION SERVICES

Hugh Porter, Head

PUBLICATIONS Five Life Sciences Contributions were published during the year: 144, *Revision of the Caddisfly Genus* Psilotreta *(Trichoptera: Odontoceridae),* by C. R. Parker and G. B. Wiggins; 146, Stipatocrinus, *a New and Unusual Camerate Crinoid from the Lower Silurian of Western New York,* by James D. Eckert and Carlton E. Brett; 147, *Biostratigraphy and Palaeontology of the Scollard Formation, Late Cretaceous and Paleocene of Alberta,* by Loris S. Russell; 148, *Shallow-Water Hydroids of Bermuda: The Athecatae,* by Dale R. Calder; and 149, *Occurrence of the Cladid Inadunate Crinoid Thalamocrinus in the Silurian (Wenlockian) of New York and Ontario,* by George C. McIntosh and Carlton E. Brett. Life Sciences Occasional Paper No. 37, *A New Genus and Four New Species of Fishes from the Indo-West Pacific (Pisces; Perciformes; Gobiidae), with Comments on Relationships,* by Richard Winterbottom and Douglass F. Hoese, was issued in the same period. One archaeology catalogue, *Central and East Gaulish Mould-Decorated Samian Ware in the Royal Ontario Museum,* by Alison Harle Easson, was also issued. In the general program, the department published two exhibition catalogues: *Patterns in Light: The John and Mary Yaremko Glass Collection,* by Janet Holmes, and *The Gould Collection of Netsuke: Miniature Sculptures from Japan,* by Hugh Wylie. Ten titles were reprinted, including *Egyptian Hieroglyphs Wall Chart* and *Communicating with the Museum Visitor: Guidelines for Planning,* both of which went into sixth printings. Miscellaneous print jobs produced, ranging from posters to business cards, totalled 291.

SALES AND ORDER FULFILMENT Three thousand book orders were filled, and sales met expectations.

PROMOTION AND DISTRIBUTION Appropriate publications were exhibited at the annual meetings of a variety of scholarly associations. Selected titles were successfully promoted by direct mail. One notable example was the exhibition catalogue *The Gould Collection of Netsuke,* now being sold in bookstores around the world. In May a new bilingual edition of *ROM Publications Catalogue for Schools* was mailed to elementary, junior high, and secondary schools across Canada as part of a cooperative mailing with five Canadian publishers; the mailing was organized by the Canadian Book Information Centre.

NEW VENTURES The department continued to develop a copublishing program with commercial publishers, sharing costs and revenues and benefiting from their wider distribution facilities. Contracts were signed with Kids Can Press and Whitman Golden Limited, and negotiations are ongoing with Lester & Orpen Dennys.

ROTUNDA Promotion of subscriptions to *Rotunda* continued through national direct-mail campaigns, Quality Service Programs, and a special Christmas gift subscription mailing. There were significant increases in advertising and subscription revenues. The magazine continued to receive radio and press coverage throughout the year.

CONFERENCES AND SEMINARS Members of the department attended various seminars. Ms. Marcia Burnett, assistant production coordinator, travelled to Banff in the capacity of coordinator of a two-week course in magazine publishing at the Banff Publishing Workshop. In June Mr. Porter attended the annual meetings of the Society for Scholarly Publishing and the Association of American University Presses in Boston. Earlier in the year he was present at a conference in Edmonton, made possible by a grant from the Social Sciences and Humanities Research Council of Canada and cosponsored by the Social Science Federation of Canada, the Canadian Federation for the Humanities, and the University of Alberta, Edmonton. The conference was entitled "Scholarly Publishing in Canada: Evolving Present, Uncertain Future."

ROM SHOPS

Leigh Stevenson, Head

The ROM Shop and the Little Shop enjoyed a gratifying fifteen per cent sales increase over the previous year. A three-year business plan was prepared incorporating changes and initiatives that the department will be implementing. The plan was approved by the Marketing and Retail Services Committee of the Board of Trustees. Some of the changes contained in the business plan have been made already. These are improvements in fixtures and fittings, new packaging designs, and a new modular shop for use during temporary exhibitions. Changes made in merchandise assortment and selection now place greater emphasis on stationary, adult and children's books, and Canadiana gifts.

The Catalogue Committee was formed by the ROM Shops, the ROM Reproductions Shop, and the shop of the George R. Gardiner Museum of Ceramic Art, Toronto. The committee's first catalogue will be produced in fall 1988.

The Museum, acting through the Development Office and the ROM Shops, has entered the clothing business with the introduction of ROMWEAR — a high quality line of leisure/active garments. Customer response has been exceptional, and ROMWEAR appears to have a bright future.

The year's single most important development was the installation and implementation of a new point-of-sale computerized inventory control system. A great deal of thanks must go to the ROM Shops office staff members, who untiringly dedicated themselves to the task of getting the system up and running and who contributed months of toil that often lasted late into the night. The Museum can now pride itself on the fact that the ROM Shop has one of the most comprehensive and accurate systems of its kind currently available and one that is geared to increase profit.

AUDITORS' REPORT

To the Trustees of
The Royal Ontario Museum:

We have examined the balance sheet of The Royal Ontario Museum as at June 30, 1988 and the statements of financial operations of the Operating Fund, Future Fund Today and Allied Trusts and ROM Galleries Campaign for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Museum as at June 30, 1988 and the results of its operations for the year then ended in accordance with the accounting principles described in note 1 to the financial statements applied, after giving retroactive effects to the change in the method of accounting for donations, bequests and captial campaign grants as explained in note 2 to the financial statements, on a basis consistent with that of the preceding year.

Clarkson Gordon

Chartered Accountants
Toronto, Canada
August 31, 1988

The Royal Ontario Museum

(Incorporated by Special Act of the Ontario Legislature as a corporation without share capital)

BALANCE SHEET

JUNE 30, 1988 (with comparative figures as at June 30, 1987)
(in thousands of dollars)

ASSETS

	1988	1987
Operating Fund		
Cash, short-term investments and accrued interest, at cost, which approximates market value	$ 4,338	$ 5,158
Marketable securities, at cost (quoted market value: 1988 – $261; 1987 – $397)	239	365
Accounts receivable	408	328
Inventories	714	582
Prepaid expenses	194	121
Deferred costs	397	244
	$ 6,290	$ 6,798
Future Fund Today and Allied Trusts		
Cash, short-term investments and accrued interest, at cost, which approximates market value	$ 1,100	$ 2,328
Marketable securities, at cost (quoted market value: 1988 – $4,326; 1987 – $2,928)	4,155	2,422
Pledges receivable (note 2)	133	129
	$ 5,388	$ 4,879
ROM Galleries Campaign		
Cash, short-term investments and accrued interest, at cost, which approximates market value	$12,078	$ 3,381
Marketable securities, at cost (quoted market value: 1988 – $490; 1987 – $5,791)	471	5,771
Pledges and grants receivable (note 2)	4,908	5,884
Other	1	1
	$17,458	$15,037
Total	$29,136	$26,714

On behalf of the Board:

Edwin A. Goodman, Trustee

M. Joan Thompson, Trustee

(See accompanying notes)

LIABILITIES AND FUND EQUITIES

	1988	1987
Operating Fund		
Accounts payable and accrued liabilities	$ 1,844	$ 1,921
Deferred revenue	3,209	2,498
Fund balance	1,237	2,379
	$ 6,290	$ 6,798
Future Fund Today and Allied Trusts		
Accounts payable and accrued liabilities	$ 57	$ 167
Fund balance	5,331	4,712
	$ 5,388	$ 4,879
ROM Galleries Campaign		
Accounts payable and accrued liabilities	$ 190	$ 1
Deferred revenue	21	
Fund balance	17,247	15,036
	$17,458	$15,037
Total	$29,136	$26,714

(See accompanying notes)

STATEMENT OF FINANCIAL OPERATIONS
Operating Fund
YEAR ENDED JUNE 30, 1988
(with comparative figures for the year ended June 30, 1987)
(in thousands of dollars)

	Operations	Restricted	1988 Total	1987 Total
Revenues:				
Grants —				
Province of Ontario – base	$18,350		$18,350	$17,415
– other	468	$ 371	839	1,573
Government of Canada	387	284	671	508
Museum generated —				
Admission fees – general and exhibitions	1,335		1,335	1,015
– Planetarium	588		588	568
Museum programs	647		647	494
Professional services		724	724	551
Investment income	283	164	447	298
Sponsorships	234		234	121
Donations (note 1(f))	4	913	917	486
Other	143	23	166	229
Museum services net income (loss) (note 3):				
Cafeteria and banquet facilities	251		251	197
Gift shops	173		173	106
Membership	95	1	96	93
Publications	60		60	(13)
Total revenues	23,018	2,480	25,498	23,641
Expenditures (note 1 (g)):				
Curatorial and collections management	7,852	1,344	9,196	7,510
Building and security	4,911	296	5,207	5,050
General and administration	3,479	326	3,805	3,221
Gallery and exhibit design	1,431	46	1,477	1,173
Education services and non-revenue public programs	1,624	53	1,677	1,464
Temporary and special exhibitions	645	340	985	401
Marketing and public relations	910	25	935	936
Planetarium	899	1	900	825
Outreach services	696	105	801	693
Artifacts and specimens (note 1 (f))		1,024	1,024	598
Library	495		495	431
Total expenditures	22,942	3,560	26,502	22,302
Excess (deficiency) of revenues over expenditures	76	(1,080)	(1,004)	1,339
Transfers between funds		(138)	(138)	271
Fund balance, beginning of year	62	2,317	2,379	769
Fund balance, end of year	$ 138	$1,099	$ 1,237	$ 2,379

(See accompanying notes)

STATEMENT OF FINANCIAL OPERATIONS
Future Fund Today and Allied Trusts
YEAR ENDED JUNE 30, 1988
(with comparative figures for the year ended June 30, 1987)
(in thousands of dollars)

	1988	1987
Revenues:		
Grants —		
Province of Ontario		$1,000
Bequests, donations and fundraising events	$ 460	1,107
Investment income	370	502
	830	2,609
Expenditures:		
In accordance with the Trusts	228	238
Development costs	60	162
	288	400
Excess of revenues over expenditures	542	2,209
Transfer between funds	77	
Fund balance, beginning of year (note 2)	4,712	2,503
Fund balance, end of year	$ 5,331	$ 4,712

Future Fund Today and Allied Trusts at June 30, 1988 consist of the following:

Future Fund Today
The Far Eastern Endowment Fund
R.S. McLaughlin Planetarium Endowment Fund
Sigmund Samuel Fund

(See accompanying notes)

STATEMENT OF FINANCIAL OPERATIONS
ROM Galleries Campaign
YEAR ENDED JUNE 30, 1988
(with comparative figures for the year ended June 30, 1987)
(in thousands of dollars)

	Cumulative balance, June 30, 1987 (note 2)	Revenues and expenditures during the year	Cumulative balance, June 30, 1988
Revenues:			
Grants —			
Province of Ontario	$10,000		$10,000
Government of Canada:			
Economic Regional Development Assistance	5,000		5,000
National Museums of Canada	166		166
Other	23		23
Bequests, donations and fundraising events	11,313	$3,133	14,446
Investment income	938	968	1,906
	27,440	4,101	31,541
Expenditures:			
Gallery development	11,385	1,369	12,754
Development costs	1,349	583	1,932
	12,734	1,952	14,686
Excess of revenues over expenditures	14,706	2,149	16,855
Transfers between funds	330	62	392
Fund balance	$15,036	$2,211	$17,247

(See accompanying notes)

NOTES TO FINANCIAL STATEMENTS
JUNE 30, 1988

1. Summary of accounting policies
The financial statements of The Royal Ontario Museum have been prepared by management in accordance with accounting policies generally followed by similar organizations. The following summary of these accounting policies is set forth to facilitate the understanding of these financial statements:

(a) Fund accounting —
In order to ensure observance of the limitations and restrictions placed on the use of resouces available to the Museum, the accounts of the Museum are maintained in accordance with the principles of fund accounting. Accordingly, resources are classified for accounting and reporting purposes into funds. These funds are held in accordance with the objectives specified by the donors or in accordance with directives issued by the Board of Trustees. Transfers between funds are made when it is considered appropriate and authorized by the Board of Trustees. For financial reporting purposes, the accounts have been classified into three groupings:

(i) Operating Fund — This includes the day-to-day operating transactions of the Museum. It also includes amounts received by the Museum that are designated by the Board of Trustees to be restricted to certain expenditures of an operating nature. The restricted funds include the following:

Grants —
Funds received from various governments and private agencies to finance specific research projects.

Board restricted funds —
Funds for general or special purposes which have been reserved in accordance with directives issued by the Board of Trustees.

Departmental reserves —
Funds received from cross-appointment teaching and other activities of staff in the Curatorial and Curatorial Service departments to assist in the financing of specific expenditures.
Capital replacement reserve —
Funds which have been set aside for major capital improvements and replacements.

(ii) Future Fund Today and Allied Trusts – This includes amounts received to create an endowment fund and to expend funds to maintain the collections, scientific research and expeditions at a world-class level.

(iii) ROM Galleries Campaign – This includes amounts received from the Campaign and expenditures incurred to design and install exhibits in the Museum's gallery spaces.

(b) Basis of recording revenues and expenditures —
Donations, bequests and capital-campaign grants are recorded when pledged. Operating grants, investment income and other revenues are recorded when earned. Expenditures are recorded when materials are used or services rendered.

(c) Marketable securities —
Investments are recorded at cost. The gain or loss on the sale of securities is based on the average carrying value of the securities sold.

(d) Inventories —
Inventories, which consist mainly of publications, book and giftshop items held for sale, and supplies, are stated at the lower of cost and net realizable value.

(e) Deferred costs —
Costs of exhibitions are deferred until the exhibitions are opened to the public and then are charged to operations over the period of the exhibition. Costs incurred in the development of other revenue-generating activities are deferred until the activities commence and then are charged to operations.

(f) Fixed assets —
The land, buildings, collections and contents are each carried in the accounts at a nominal value of $1. Construction costs and other fixed-asset additions are expensed. Accordingly, no depreciation is recorded in the accounts.

Artifacts and specimens which are acquired by gift during the year are recorded as donations at their estimated appraisal values (1988 – $795 thousand; 1987 – $410 thousand). The cost or appraised value of gifts, artifacts and specimens acquired during the year is expensed.

(g) Expenditures are reported in the statement of financial operations of the operating fund on a functional basis. Expenditures comprise:

	Operations	Restricted	Total
	(in thousands of dollars)		
Year ended June 30, 1988			
Salaries, wages and benefits	$ 17,400	$ 590	$ 17,990
Purchased goods and services	5,542	2,970	8,512
	$ 22,942	$ 3,560	$ 26,502
Year ended June 30, 1987			
Salaries, wages and benefits	$ 15,472	$ 256	$ 15,728
Purchased goods and services	5,536	1,038	6,574
	$ 21,008	$ 1,294	$ 22,302

2. Change in accounting policy
The Museum has adopted the accounting policy of recording revenue from donations, bequests and capital campaign grants when pledged. Previously, such revenues were recorded when cash was received. This change in accounting policy has been applied retroactively and, accordingly, the comparative figures for the year ended June 30, 1987 have been restated to give effect to the new accounting policy.

The change in accounting policy had the following effect on the financial statements for the years ended June 30, 1988 and 1987:

	Future Fund Today and Allied Trusts		ROM Galleries Campaign	
	(in thousands of dollars)			
	1988	1987	1988	1987
Increase (decrease) in revenues and in excess of revenues over expenditures for the year	$ 4	$129	$ (976)	$ (1,848)
Increase in fund balance, end of the year	$133	$129	$4,908	$ 5,884

3. Museum services
Certain revenue-producing operations of the Museum are presented on a net basis in the operating fund statement of financial operations since their revenues and expenditures are directly related. The gross revenues and expenditures of these operations are as follows:

	Revenues	Expenditures	Net income (loss)
	(in thousands of dollars)		
Year ended June 30, 1988			
Cafeteria and banquet facilities	$ 409	$ 158	$251
Gift shops	1,494	1,321	173
Membership	1,090	994	96
Publications	276	216	60
Year ended June 30, 1987			
Cafeteria and banquet facilities	$ 267	$ 70	$197
Gift shops	1,294	1,188	106
Membership	940	847	93
Publications	283	296	(13)

4. Pension plan
The Museum has established the Museum Pension Trust to cover its employees and pensioners. An actuarial valuation of the Plan as at January 1, 1988 prepared by the Museum's actuary indicated that the plan had no unfunded liability.

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1 July 1987 to 30 June 1988

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Aetna Canada
Agincourt Autohaus Inc.
Allstate Foundation of Canada
American Express Canada, Inc.
Ault Foods Limited

BMW Canada Inc.
Bank of Montreal
The Bank of Nova Scotia
Bell Canada
Brascan Limited
Allan and Lucy Bronfman Family Foundation
Burns Fry Limited

C-I-L Inc.
The Cadillac Fairview Corporation Limited
Campeau Corporation
The Canada Life Assurance Company
Canada Packers Inc.
Canada Trust
Canadian A.S.E. Limited
Canadian Imperial Bank of Commerce
Canadian National
Canadian Tire Corporation Limited
Carling O'Keefe Limited
Carlton Cards Limited
Central Trust Company
Chateau-Gai Wines
Chemical Bank of Canada
City Buick Pontiac Cadillac Ltd.
Coca-Cola Ltd.
Cogan Corporation
Confederation Life Insurance Company
Control Data Canada Ltd
Crownx Inc.

Dickenson Mines Ltd.
Dofasco Inc.
The Dominion of Canada General Insurance Company
Dominion Securities Pitfield Limited
Dylex Limited

The Eaton Foundation
Electrolux Canada

F. W. Fearman Co. Ltd.
Fiberglas Canada Inc.
Ford Motor Company of Canada, Limited
Four Seasons Hotels

GSW Inc.
General Mills Canada, Inc.
General Motors of Canada Limited
The Glen Group
Godfrey Estates Limited
Goodman & Goodman
Gordon Capital Corporation
Grafton Group Limited
Guaranty Trust Company of Canada
Gulf Canada Corporation

Roy C. Hill Charitable Foundation
Norman Hollend Realty Inc.

IBM Canada Ltd.
Imasco Limited
The Imperial Life Assurance Company of Canada
Imperial Oil Limited
Indal Limited
Interprovincial Pipe Line Limited
Richard Ivey Foundation
Richard and Jean Ivey Fund

Jackman Foundation
Jannock Limited
Josephson Opticians
Henry White Kinnear Foundation
Kodak Canada Inc.

John Labatt Limited/ Labatt's Ontario Breweries
Lac Minerals Limited
Lawson Mardon Group Limited
Livingston Group Inc.
Lloyd's Bank Canada

Maclean Hunter Limited
Magna International Canada Inc.
The Manufacturers Life Insurance Company
R. Samuel McLaughlin Foundation
The McLean Foundation
McLeod Young Weir Limited
Mercedes-Benz Canada Inc.
Midland Doherty Limited
Mobil Oil Canada Ltd.
Moore Corporation Limited
Morgan Bank of Canada
Mutual Life Assurance Company of Canada

Nabisco Brands Ltd.
National Sewer Pipe Limited
National Trust Company
Nesbitt Thomson Bongard Inc.
Norcen Energy Resources Limited
North American Life Assurance Company

Olympia & York Developments Limited
The Oshawa Group Limited

Richard Perren & Company Inc.
Petro-Canada Inc.
Procter & Gamble Inc.

RJR-Macdonald Inc.
Redpath Industries Limited
Reitmans Inc.
Rio Algom Limited
Rothmans, Benson & Hedges Inc.
The Royal Bank of Canada
Royal TrustCo Limited

E. L. Samuel Group
J. M. Schneider Inc.
The Seagram Company Ltd.
The Second Cup Ltd.
Silcorp Limited
Smith, Lyons, Torrance, Stevenson & Mayer
Snowcap Investments Limited
Southam Inc.
Sun Life Assurance Company of Canada
Suncor Inc.

Swiss Bank Corporation (Canada)

Tandem, A Realty Investors Corporation
Texaco Canada Ltd.
Thomson Newspapers Limited
Toronto Dominion Bank
The Toronto Sun
Transcanada Pipelines Limited

Unicorp Canada Corporation
Union Carbide Canada Limited

The Vered Foundation

Hiram Walker Resources Ltd.
George Weston Limited
The Wood Gundy Charitable Foundation
M. K. Wong & Associates Limited

Xerox Canada Inc.

and other companies that choose to remain anonymous

Director's Circle: The following individual members have donated at least $400 a year to the ROM.

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Mrs. Gordon M. Fisher
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Mrs. J. G. Worts
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Dr. and Mrs. A. S. Zajac

and other individuals who choose to remain anonymous

Museum Circle (newly formed): The following individual members have donated at least $200 a year to the ROM.

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Foundations
The Birks Family Foundation
Bishop White Committee

Canadian Gemmological Association
Canadian Geological Foundation
Jack Cooper Family Foundation

The Eaton Foundation

Hope Charitable Foundation
Donald F. Hunter Charitable Foundation
Nelson Arthur Hyland Foundation

Richard Ivey Foundation

Henry White Kinnear Foundation

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N. A. Taylor Foundation
Tecolote Foundation

Universal Temple

George and Helen Vari Foundation
Vered Foundation

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Willmot Foundation
Max and Beatrice Wolfe Charitable Foundation
Wood Gundy Charitable Foundation

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Corporations $250 and over
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Amax of Canada Limited, Pacific Coast

Best Western Wheels Inn
Boiler Inspection & Insurance Company of Canada
Biles & Wratten
Bud and Kim's Canoe Canada Outfitters
Budd Canada Inc.
Burley Trading Inc.

Campbell Soup Company Ltd.
Canada Malting Co. Limited
Canada Reinsurance Company
Canada Starch Company Inc.
Canadian Art Prints
Chizzelcheez Holdings Limited
Cineplex Odeon Corporation (Theatre Division)
Citibank Canada
Corning Canada Incorporated
Costello Trust
Peter C. Cotton Inc.
Crown Life Insurance Company
Dirstein Robertson Ltd.
Discovery Arts

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Galerie Timothy Roberts Inc.
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Harlequin Enterprises Limited
Helmhorst Investments Ltd.
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Intvest Holdings Limited

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Monopros Ltd.
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Ontario Heritage Foundation
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Project Graphics Inc.
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Secrett Jewellers
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Thistledown (One Stich At A Time)
Town & Country

Unilever Canada Limited
Union Gas Limited

Warner-Lambert Canada Inc.
Wellington Trust Company

Zeidler Roberts Partnership Architects

and other companies that choose to remain anonymous

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Mrs. H. T. Airey
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Mrs. Violet Anderson
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Mrs. David Grant
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Mr. Gilbert Gray
Mr. Gordon Gray
Mrs. Richard Graybiel
Dr. William Greenwood
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Dr. Naomi (Jackson) Groves
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Miss Catherine Harris
David and Margo Harris
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